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for the health sciences*



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*The Other Abraham:
Flexner in Illinois*

Patricia Spain Ward



Abraham Flexner (1866-1959), seated at his desk in 1923. Taken ten years after he joined the permanent staff of the General Education Board established by John D. Rockefeller (and more than a decade after the publication of his famous report on American medical education), this photograph captures the air of imperturbable self-assurance that often enraged Flexner's contemporaries. (Reprinted with permission of the Rockefeller University Archives.)

The Other Abraham: Flexner in Illinois

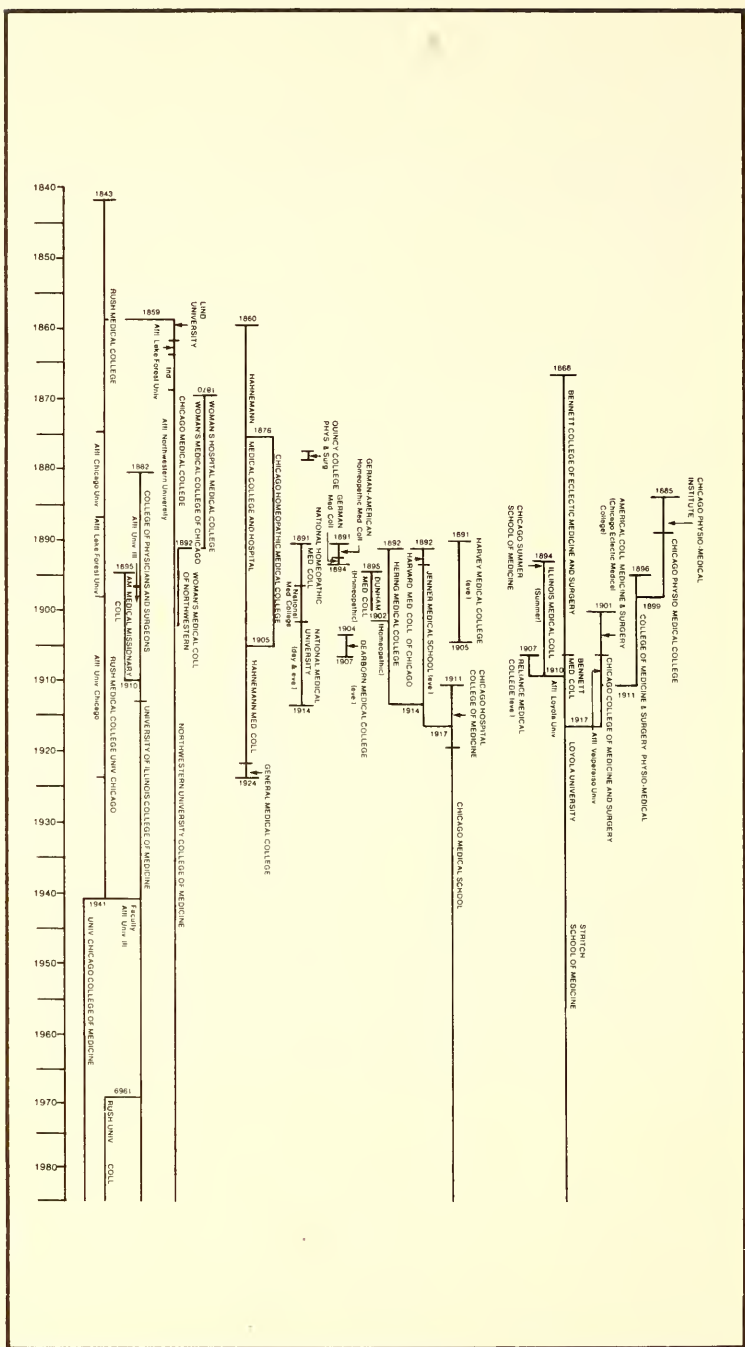
by Patricia Spain Ward

"The city of Chicago is in respect to medical education the plague spot of the country."

So wrote Abraham Flexner in 1910, summing up his impressions of Illinois, the state he smugly labelled "prolific mother" of institutions for the education of physicians.¹ Out of a total of thirty-nine medical schools founded in Illinois at one time or another, fourteen survived at the time of Flexner's inspection in 1909, all of them located in Chicago.² In his opinion, only three were worth saving: Rush, Northwestern, and the College of Physicians and Surgeons of Chicago (medical-department-by-lease of the University of Illinois), popularly called the "P. & S." In Flexner's view, even these three needed many changes.

However flawed some of Illinois' medical schools, "plague spot" was a strange choice of phrase for a city with no fewer than three acceptable institutions (nearly 10 percent of the total number Flexner thought the country needed). Nor does "plague spot" reflect Flexner's own survey, which showed that few American medical schools met his exacting standards and that many cities had too many, low-quality institutions. It may even be true that Flexner had not originally planned to call Chicago "the plague spot" in the text of his *Medical Education in the United States and Canada*. The phrase is there, nonetheless, standing as one of the most unforgettable in this exhaustive compilation of data, also known as Bulletin Number Four of the Carnegie Foundation for the Advancement of Teaching. More often quoted than read, the *Report* runs to more than three hundred tall pages about U.S. schools alone, pages closely printed and couched throughout in the acerb, biting style that was the hallmark of this professional critic of educational systems. (Abraham Flexner delighted in sharp, arresting phrases, believing, perhaps, that what his style occasionally cost in precision, it more than made up in drama.)³

Chicago's many medical schools, between 1843 and the present. The opening dates given indicate the school's first year of actual operation, in some cases the "founding" or incorporation occurred one or more years later. (Graph reproduced with the kind permission of its creator, Daniel P. Jones, formerly of the Humanistic Studies Program, University of Illinois at Chicago, now at the National Endowment for the Humanities.)



As historians remind us from time to time, Flexner did not singlehandedly transform American medical education.⁴ In Illinois, as in other states, his stinging indictment of medical education merely served to accelerate reforms that the Illinois State Board of Health had championed as early as 1881, reforms the American Medical Association (AMA) and the Association of American Medical Colleges (AAMC) had been pressing—less noisily than Flexner—for some years. Of an estimated 162 schools operating when the AMA Council on Medical Education (CME) issued its first report in 1906, some thirty had gone out of business prior to the Carnegie publication of 1910.

Flexner's *Report*, however, did finish off most of the small, poorly funded schools that had eluded generally tightening legal strictures on the practice of medicine—legislation in which Illinois' Act to Regulate the Practice of Medicine had led the way in 1877. Within five years of Flexner's bombshell, the number of surviving schools fell to ninety-five, most of them requiring at least one year of college work for admission. Illinois in the immediate post-Flexner period was the scene of a bewildering number of mergers and extinctions, as Professor Dan Jones, formerly of the University of Illinois at Chicago, has showed in the accompanying chart. The "plague spot" where Flexner inspected fourteen schools in 1909 held only nine by 1911—down to eight by 1915.

The medical profession in Illinois had long been aware that the state held too many medical schools and that a number of them were dismally inadequate. Medical leaders were grappling for their own solutions to this problem when Flexner's brutal statement, widely quoted in the national press, assaulted Illinois' rising sense of regional pride, a pride enhanced by its relative youth and recent ascent to prominence.

Chicago, through phenomenal population increase, especially after the Civil War and the Great Fire of 1871, had grown from a muddy village incorporated in 1833 with barely 200 inhabitants to a metropolitan population pressing two million at the turn of the century. The Columbian Exposition of 1893 had brought the city to international attention as a newly materialized world metropolis.

In 1877 the medical profession in Illinois had demonstrated national leadership by securing legislation to regulate the practice of medicine. The report issued in 1881 by the Illinois State Board of

Health (ISBH), the body then entrusted with regulating education and licensure, was the first classification of medical schools in the U.S. and Canada. The Board repeated this service at book length in 1891, in a campaign for higher standards that brought renown (as the "John the Baptist of education reform" in the Midwest) to John H. Rauch, the Board's first President and later its executive officer with the title of Secretary. Building on its successful efforts to secure medical licensure, Illinois also arranged for the Board to regulate itinerant medicine vendors (the only state to do so in 1910) and to examine and license midwives and embalmers.⁵

In 1883 Chicago printers had won the competition for publication of *JAMA*. Thus the official publication of organized medicine came under the editorship of Nathan Smith Davis, the same Davis who had initially called for the formation of the AMA in the 1840s and had personally pioneered in raising educational requirements when he led a faculty revolt from Rush to found the "reform school" called Chicago Medical College (later Northwestern University Medical School). In 1902, when *JAMA*'s economic success enabled the AMA to purchase a headquarters building, Chicago had again led the field in hot contest with eastern seaboard contenders such as Washington and New York.⁶ Rapidly overtaking Louisville, Cincinnati and St. Louis in numbers of physicians graduated, Chicago at the time of Flexner's survey held two of the five largest medical schools in the nation: Northwestern, with an enrollment of 522; and P. & S., with 517. (In student enrollment nationwide, Northwestern was surpassed only by the University of Louisville, with 600; the P. & S. was fifth in size, after Jefferson with 591 and the University of Pennsylvania with 546.)⁷

Local pride in Illinois' medical standing was such by 1910 that anger at Flexner would surely have turned on organized medicine, had the profession known then (as we know now) that the Carnegie Foundation for the Advancement of Teaching undertook its study of medical education at the invitation of the Council on Medical Education of the AMA.⁸ This fact remained secret throughout the next two years, while Flexner toured the 155 medical schools of North America. (He travelled in the company of Nathan C. Colwell of the AMA, but without any appearance of being supervised.) The Carnegie/AMA connection was still unacknowledged when Flexner published his opinion—some believe it was a foregone conclusion—that only the thirty-five best schools were needed (thirty-one in the States, four in Canada) to provide enough physicians for the continent.

The AMA was not eager to make known the fact that it had asked the Carnegie Foundation to evaluate American medical schools. In writing the introduction to Bulletin Number Four, Henry S. Pritchett, President of the Carnegie Foundation, took pains to explain that the Foundation was almost forced into its assessment of professional schools in order to implement its trust: the establishment of pension funds for retired teachers. Pritchett made no greater acknowledgment to the AMA than to other helpful groups, thus camouflaging the real story—which scholars have only recently begun to flesh out through study of his newly opened papers. Initially, this policy of secrecy was intended to strengthen the semblance of impartiality (and thus the effectiveness) of the Foundation's findings. When Flexner's intensely critical judgments aroused a storm of protest (some said he was more destructive than constructive), the AMA appeared relieved to treat the Carnegie report as merely a parallel effort, not directly related to its own drive for reform in medical education.⁹

Around the country Bulletin Number Four drew fire from educators who had spoken candidly to Flexner about the shortcomings of their institutions, in the natural expectation that the foundation he represented was attempting to discover deficiencies in order to help correct them. On finding that the published *Report* used their confidences—often verbatim—to condemn their institutions, many felt betrayed. In South Carolina, the *Charleston News and Courier* referred to the “rape of our entire educational system by one man.”¹⁰ In Maryland, where Flexner all but advised the state university medical school to close up shop (after 103 years of operation) and turn its assets over to The Johns Hopkins, the editor of the University of Maryland *Hospital Bulletin* responded with invective. Calling Flexner a “three-ball artist” (derived from the pawnbroker's sign, the reference was slang for a rich or present-giving uncle), he said Flexner emitted “vituperative rantings and slush” while representing the interests of an “educational oligarchy” within an institution tainted by the ill-gotten profits of a trust.¹¹

Most American physicians, including the Hopkins faculty Flexner took as models, had received their training at proprietary schools, those faculty-owned-and-operated institutions Flexner condemned as having outlived whatever usefulness they may once have had. Even those who did not feel that they had been personally snookered by Flexner during his inspections resented his

suggestion that physician-educators were not only incompetent, but probably venal and avaricious as well. Many angry contemporaries reacted to Flexner by enumerating some of the great figures in American medicine and surgery who had received their education—albeit with additional training in Europe—in those very schools Flexner would see abolished: Samuel Gross, S. Weir Mitchell, Henry Burton Sands, Willard Parker, Austin Flint, Alfred P. Loomis. Recalling that Simon Flexner, Abraham's brother (and "one of the most brilliant medical men of the present age of scientific medicine"), was a graduate of the University of Louisville Medical Department (which Abraham considered hopeless), the editor of *American Medicine* declared: "We need all the Simon Flexners we can get, and a school that can help one such man in each decade embark on a career so useful to his fellows and all mankind, has justified its existence, Brother Abraham notwithstanding."¹²

Illinois shared in the shock Flexner evoked across the face of the continent, a shock aggravated here by unique predisposing circumstances, and by Flexner's unwarranted censure of Illinois as the worst of the states. Local pride was a subject of scorn to the worldly-wise Flexner, who had fun at the expense of those American provincials who thought that they deserved to have a "medical college" because they lived in a "gateway" or "center." (It was not always easy to distinguish the two, Flexner explained, with mock seriousness: "a center appears to be a town possessing, or within easy reach of, say 50,000 persons; a gateway is a town with at least two railroad stations.")¹³

Still farther beyond his understanding, local pride in Illinois was complicated by Chicago/Downstate rivalry and by intraprofessional feuds. By 1909, when Flexner inspected Illinois schools, the Downstate was well organized in its determination to limit Cook County representation in the General Assembly, despite a constitutional mandate to reapportion representation on the basis of each successive decennial census. The larger representation allowed to Chicago in 1901 was to be the last such increase for a full quarter-century. Meanwhile, internal sectional struggle marred the process of government state-wide—and especially in Chicago, which lacked the prerogatives of home-rule.¹⁴

The location of the AMA in Chicago had led to its tight alignment with the Illinois State Medical Society (ISMS) and with many of the county societies that mushroomed across the state at the turn of the century. This group on one side frequently faced off in intricate maneuver against the Chicago Medical Society and the Springfield-based Illinois State Board of Health on the other, with just enough crossing-over and ticket-splitting to keep party lines in tantalizing flux.

Illinois was rich in populous and powerful sects (homeopathy, eclecticism, nature sects, chiropractic, osteopathy), a fact which influenced politics and medical politics, contributing to friction within the regular profession and to legislative limitations on the Board of Health in setting educational requirements for admission to medical school. This too Flexner apparently failed to grasp, even after reading the law that had stripped the Board of this power in 1908.

Least comprehensible of all to Abraham Flexner was the egalitarian impulse of the Land of Abraham Lincoln, a force that accounted for many of the characteristics of Illinois medicine that Flexner found obnoxious.

As Americans appraise Flexner's findings and recommendations from the viewpoint of problems facing medicine today, a reading of the Illinois medical literature of that period indicates that a reconsideration of his "plague spot" verdict may be in order. The evidence suggests that when Flexner came to Illinois, he strayed into professional tangles of long standing and almost unfathomable complexity. In Illinois as elsewhere, Flexner seems to have slipped into the "unwisely heated tone and language" for which he later berated himself, behavior of the kind that brought complaints about him to President Pritchett almost from the beginning of his inspections.¹⁵ In Illinois, however, this verbal aggression appears to have set in motion forces which later compelled Flexner to retain the colorful "plague spot" metaphor in writing his *Report*, however poorly it fit his own facts. Like Illinois' indigenous pitcher plant, the state's voracious medical factions drew Flexner in, devoured his facile opinions, and assimilated them for use on the various sides of what had formerly been a private war.



Precursors for Flexner's "plague spot" metaphor abounded within Illinois long before he used it to hold up the state to national ridicule. The idea that Illinois was "the worst" seems to have sprung initially, in 1905 or 1906, from Arthur Dean Bevan, a Rush graduate who was the first chairman of the Council on Medical Education of the AMA. Based on failure rates of graduates of the various medical schools before state examining boards in 1904, Bevan singled out "five especially rotten spots" which he said were responsible for "most of the bad instruction" then being given in the country.¹⁶

Five states at that time had three or more colleges whose graduates showed a greater than 20 percent failure rate on board exams. In the order in which Bevan ranked them after a hasty perusal of his data, they were Illinois, Kentucky, Maryland, Missouri and Tennessee. Although CME tabulations showed that three of Ohio's eight schools had a higher percentage of failures than the three worst of Illinois' fourteen, Bevan omitted Ohio from his list and—equally unaccountably—placed Illinois at the top, most "rotten" of them all. Yet, according to Bevan's own data, Illinois had only three offending institutions, whereas Kentucky, Maryland and Missouri each had five, and Tennessee had six!¹⁷

Perhaps, as Bevan recalled many years later, he had based his "rotten spot" rankings not on board exams but on total number of schools. In that case, Illinois (with fifteen) did outrank Missouri (with fourteen), Tennessee (with ten), Maryland (with eight), and Kentucky (with seven), thus truly earning first place on Bevan's list.¹⁸ Whatever the basis for Bevan's selection in 1905/06, Illinois was aware of its failings. By 1909 when Flexner came, many of its schools had upgraded their standards under prodding by the CME and by the Illinois State Board of Health. Critics of the Board, meanwhile, had never completely let go of the colorful pejorative, "rotten spot," pulling it out from time to time to berate the Board for its failings, real and imagined.¹⁹

Many Illinois physicians had long advocated that the regulation of practitioners be separated out from the sanitary duties of the Illinois State Board of Health and be given to an independently appointed board of examiners. From his appointment in 1897 as

Secretary (executive officer) of the ISBH, James A. Egan shared this view; but his reason for wanting a division of labor differed from that of most regular physicians. The state medical society in Illinois, like newly rising state medical organizations throughout the nation in that period, wanted to secure control of medical education and licensure. Egan, a medical graduate of Northwestern and a first-rate sanitarian, was primarily interested in preventing disease, not in licensing practitioners or inspecting medical schools. The burden of regulating the profession, then consuming 75 to 80 percent of the Board's time and energy, was a duty Egan wanted to shed.²⁰

At a time when Illinois legislators, like those of most states, were reluctant to spend money on public health measures, Egan showed considerable genius in devising and setting into motion various forms of apparatus to safeguard the health of the people, only afterward asking the legislature to appropriate funds to continue the good work already begun. Working in this fashion Egan designed pollution studies that established the self-purification of running streams, thus helping to win a Supreme Court decision for Illinois in her litigation with Missouri after the construction of the Chicago Drainage Canal. In much the same way Egan gradually obtained state support for projects to collect and record vital statistics; to provide bacteriological and chemical diagnostic testing for physicians; to purchase and distribute free diphtheria antitoxin; to provide free rabies treatment to the indigent; and to reimburse, on a per diem basis, the services of physicians he selected at strategic points around the state, a sanitary corps ready to spring into action in case of flood or epidemic.

Although he did not welcome regulatory duties, Egan did not neglect them. He secured reciprocity agreements for Illinois physicians with many neighboring states, and he detected and brought to prosecution innumerable medical frauds and diploma mills. (Their mere listing filled pages of each issue of the *Bulletin*, the lively and informative monthly publication of the ISBH which Egan inaugurated in 1906, writing most of its scintillating contents himself.) A memorial tribute by a colleague noted that it was largely thanks to Egan's work that the London *Lancet* could no longer claim that Chicago conferred medical degrees with the same ease and facility with which she killed hogs. For carrying this staggering load of sanitary and regulatory work, Egan (and an assistant first appointed in 1905) drew salaries from a total

appropriation for them both of \$5000 yearly, a salary level in force from 1907 until Egan's death in office in 1913, at the age of fifty-three.

Neither in Flexner's view, nor in that of many Illinois physicians, did Egan's skilful defense of the state against real "plague spots"—typhoid, smallpox, yellow fever, tuberculosis—outweigh the continued existence (for which they blamed him) of inferior medical schools in Chicago. Many Illinois physicians also blamed Egan for the fact that growing numbers of practitioners in the state were making it increasingly difficult to earn a living by the practice of medicine.²¹

Throughout his years as Secretary of the Board, Egan feuded with those physicians who believed that, because the medical profession had done so much to bring the Board into existence in 1877, the Board in turn should regulate medical practice in the fashion desired by the regulars. For his part, Egan insisted that the Board was the instrument of the people, not of the physicians. He thus limited himself to what the law required, whether in licensing sectarians or in granting recognition to medical schools. It was primarily this conflict—between the Society's insistence that the Board existed to protect the profession from ill-trained competition and the Board's view of itself as an instrument for protecting the health of Illinois citizens—that gave Flexner's opinions a particular torque in the Prairie State, with unique vectors and angles of force.²²

Egan was a political realist who had remained in his post through the Republican administrations that followed John Peter Altgeld: from Governor John Tanner of Clay County, who appointed him in 1897, through Richard Yates of Morgan County, and Charles S. Deneen of Cook County. He continued to serve into the term of Edward F. Dunne of Cook County, Illinois' first Democratic governor since Altgeld (who, in turn, had been the first since 1857, before the Civil War).

Much ahead of his medical colleagues, Egan recognized the political strength of the various medical sects in Illinois and correctly estimated their willingness to support one another against efforts by the regulars to drive them out of existence. It was Egan who warned the profession to act to dissuade Governor Tanner from signing the Osteopathic Bill of 1897. He also

uncovered the fact that “the pleasant old Chicago Senator” who introduced it into the legislature—where it passed both houses, unanimously in the Senate—had no special sympathy with osteopathy, but was a Christian Scientist who saw the bill as an “outside skirmish line” intended to break down the Medical Practice Act, thus opening the way for other exceptions later.

With political foresight that eluded the comprehension of many physicians, Egan helped secure the law of 1899, whereby properly qualified osteopaths could be examined and certified to practice as drugless healers. As a colleague on the Board explained it after Egan’s death, he thus prevented “the creation of a state board of osteopathic examiners or the recognition of osteopaths by the state of Illinois, or the placing of an osteopath on the State Board of Health, as has been done in Kentucky and New York, or upon the State Board of Medical Examiners, as has been done in several of the states of the Union.” Unlike the editor of the *Illinois Medical Journal (IMJ)*, Egan did not take osteopathy lightly, as an aberration on the wane. Physicians who did not understand his motives, however, like those who disputed his tactics, considered him a traitor to the regular profession and an enemy of the state medical society.

Because a Department of Registration and Education, separate from the Department of Public Health, did not come into being in Illinois until 1917, when the state government was totally reorganized, Egan was forced throughout his sixteen-year tenure as executive officer of ISBH to carry out the Board’s multiform duties—regulatory as well as sanitary. He did so in the face of intermittent sniping, especially from critics within the Illinois State Medical Society. At the time of Flexner’s two Illinois inspections—in April and December 1909—Egan faced emergencies in both realms of his official duties.

Illinois’ first recognized outbreak of pellagra began in early August 1909, with the discovery of some sixty to eighty cases among 2100 inmates at Peoria State Hospital (formerly the Illinois General Hospital for the Insane) in South Bartonville. Egan immediately responded with an issue of the *Bulletin* devoted to a review of the literature about pellagra, showing that the best thought about the disease variously attributed it to toxicity (from spoiled corn) and to as-yet-unidentified agents of infection. (Although the deficiency disease concept was not yet well established, Egan listed it first

among possible causes.) He also arranged for studies to begin at South Bartonville in an attempt to discover the cause and thus the means of prevention.²³

At the same time Egan had to contend with a mandamus action filed in the Superior Court of Cook County by National Medical University, a Chicago school which the Board, in April 1909, declared no longer in good standing. The University's physician-owner also brought suit for damages against Egan personally, and against his fellow Board members, in the total sum of \$500,000. (Coming on the scene in the middle of this excitement, Flexner mentioned in his *Report* that in some states the law left its unfortunate regulatory board vulnerable to being "successfully 'mandamused' the moment it raises a finger.")²⁴ In fact, Flexner singled out National Medical University as "the worst of the Chicago schools." On demanding to see its alleged facilities for practical anatomy, he had found himself "rewarded by the sight of a dirty, unused, and almost inaccessible room containing a putrid corpse, several of the members of which had been hacked off." The school advertised offers of "free transportation from Chicago to Vienna by way of New York, London, Paris, etc." to graduates who had for "three years or more paid regular fees in cash."²⁵

National Medical University served as Flexner's proof that state board examinations did not eliminate poorly educated graduates. He said that this school's performance before state boards in 1906 constituted "the best record attained by any Chicago school in that year," surely a factor influencing action by the Illinois Board, which had only recently dropped the school from good standing.

In several rebuttals published in the *Bulletin*, Egan used this mandamus action and damage suit to illustrate the difference between boards like his own and such bodies as the CME and the Carnegie Foundation, which could glibly insist on the highest possible standards without fear of legal retaliation. (The *Chicago Medical Record*, following a different line of thought, suggested that persistent criticism of the Board by Illinoisans had emboldened the miffed owner of National Medical University to try a court test of Board authority.)²⁶

In November, just before the mandamus and damages litigation hit him, Egan (who, in addition to his other, ongoing duties, was directing the Board's pellagra investigation) received the text of a



James Andrew Egan (1859-1913), chief executive officer of the Illinois State Board of Health from 1897 until his death. Despite his outstanding record of sanitary and regulatory successes, many Illinois physicians, ignoring the legislative constraints on his regulatory actions, blamed him for low educational standards and overcrowding in the profession. Three years after Flexner's attack on Egan and the Board, nephritis led to Egan's death in office at the age of fifty-three. (Photograph, probably dating to Egan's service in the Quartermaster Corps in the 1880s before he studied medicine, courtesy of Illinois State Archives, Springfield.)

resolution passed at the annual meeting of the Southern Illinois Medical Society (SIMS). By a unanimous vote, SIMS delegates had closed their meeting in East St. Louis by approving the following text:

WHEREAS, It has been brought to the attention of the members of the Southern Illinois Medical Society from several sources that Illinois has become one of the "rotten spots" of the United States in medical education and medical licensure and,

WHEREAS, In former years the State of Illinois was ranked among the five highest in matters of medical education and medical licensure, and

WHEREAS, The Southern Illinois Medical Society has always been on record as demanding a high standard of medical education and of admission to practice:

Therefore, be it

Resolved, That the Southern Illinois Medical Society without prejudice toward our Board of Health, but solely for the information of its members and other physicians interested, do hereby request the Secretary of the Illinois State Board of Health to explain through the official *Bulletin* of the Board or through the columns of the *Illinois Medical Journal* why Illinois should bear the stigma of being one of the plague spots of this country in medical education, medical examination and medical licensure.²⁷

Egan received this text of November 5 shortly before it appeared in the December 1909 *Illinois Medical Journal* under the heading "ILLINOIS AND 'ROTTEN' MEDICAL EDUCATION." Editor George Kreider, long an Egan antagonist, reprinted the entire resolution without comment, other than to invite discussion in the *Journal*. Kreider specifically summoned Egan "to explain to the profession of the state the causes which have conspired to give our fair state its very undesirable position and reputation in medical education, medical licensure and medical practice."²⁸

Harassed by litigation and preoccupied with his wife's serious illness (which was to prove fatal only a few months later), Egan

struck back with a response that opened one of the bitterest episodes in the history of Illinois' notoriously hard-hitting medical journalism. Although a resident of Springfield, Egan had been unable to attend the second day of the East St. Louis meeting because of his wife's illness. He held back on publishing his response in the December 1909 *Bulletin*, delaying the entire issue long enough to track down the story behind the resolution. Having gotten the facts, he included them with his reply and sent the entire story out (also as "Advance Sheets," running to ten *Bulletin* pages) under the title, "ILLINOIS 'A PLAGUE SPOT IN MEDICAL EDUCATION, MEDICAL EXAMINATION AND MEDICAL LICENSURE?'"²⁹

The "plague spot" resolution, Egan had learned, was the work of Carl Black, a Jacksonville surgeon, President of the ISMS in 1904, and a longtime friend of Editor Kreider of the *IMJ*. Egan made a special point of the fact that Black brought his anti-Board resolution, not to the state society (where Black chaired the Judicial Council from 1909 to 1913) but to the Southern Illinois Medical Society, where Black was a non-member, attending as an invited guest. There, on the day when Egan was unable to attend, Black gave the resolution over, late in the last session of the meeting, to be introduced—to a tired membership, ready to start home—by a courteous physician who was anxious to oblige the visitor and who failed until later to see the resolution's implications for his friend, James Egan.

Egan deplored the fact that he must take time to answer "ridiculous and flimsily founded allegations, in the origin and publication of which may be detected the unmistakable ear-marks of malice, and the hands of those who are constant and persistent in their disparagement of the Illinois State Board of Health." Those Illinois physicians who had followed "the red thread of animus which has run through the hazes and mazes" of the state's medical politics would understand. For the benefit of the others, Egan felt compelled to defend himself. He dredged up the charges repeatedly brought forward by Black and Kreider, and the occasions when they had failed to name specific offending medical schools—either when questioned by Governor Deneen at a conference their charges inspired in 1908, or at ISMS meetings at Peoria in 1908 and at Quincy in 1909.

Egan also reviewed the 1904 CME data on which Arthur Bevan had based his statement about "rotten spots" in American medical education. Egan explained that he had not previously challenged the rank Bevan had assigned to Illinois because he believed that Bevan, in a "sincere desire to remedy conditions which apparently existed in Illinois and in the other states named," had simply erred in discussing the figures.

No responsible source, Egan continued, had ever called Illinois the "plague spot" of medical education.

When the Chairman of the Judicial Council of the Illinois State Medical Society engages himself in casting mud upon the fair name of his State from his concealment behind the skirts of a society of which he is not a member; when a resolution so obviously unfounded and of such notoriously questionable origin is given publicity, without question, in the official organ of the Illinois State Medical Society, it is not difficult to determine one of the most potent causes of the 'stigma' borne by our 'fair State' at home and abroad.

Writing in a white heat of anger, Egan lost the political balance for which he was otherwise noted. He tempted the fates in a dare he was doomed to lose because of the collusion, then unknown to him, between Flexner and the AMA. Unaware that Flexner was operating (in the words of a recent scholar) as "hatchet man" for the AMA, Egan threw down the gauntlet—as he thought—to his Illinois critics:

[We] challenge the editor of the *Illinois Medical Journal* [George Kreider] or the Chairman of the Judicial Council [Carl Black] to point out any responsible utterance or writing, except the resolution above referred to, in which Illinois has been alluded to as 'one of the plague spots of this country, in medical education, medical examination and medical licensure.'³⁰

Given all the circumstances as we now know them, Flexner (who was without doubt one of the "sources" mentioned in the resolution) could scarcely do otherwise than respond by writing that Illinois was in fact "the plague spot of the country." Although he confined his specific stigmatization to medical education alone,

omitting examination and licensure, his next few sentences effectively undermined the Board's fundamental reliability. Flexner charged that Chicago schools "flagrantly violated" Illinois' "fairly adequate" law, with the "indubitable connivance of the state board." Of the fourteen schools he had visited, "the majority exist and prepare candidates for the Illinois state board examinations in unmistakable contravention of the law and the state board rules."³¹

The AMA and its CME had depended on Flexner's publication to justify increasingly rigorous requirements for medical graduates, and also to bring recalcitrant regulatory agencies into line. Flexner's opening paragraphs in the Illinois section of his *Report* achieved both ends with a single master stroke, disguised as objective, expert opinion.



For the first five months of 1910, the Board-versus-the-Society debate within Illinois medicine raged hot and heavy, gripping the profession in every corner of the state. Between Flexner's second inspection of Chicago schools, in December 1909, and the publication of his *Report* the following June, the *IMJ* and the *Bulletin* of the ISBH had to put on extra pages in almost every issue, to accommodate snowballing charges and counter-charges. As tempers grew shorter, tongues and pens openly vented intraprofessional grievances that had smouldered over the preceding decades.

The prevailing tendency to shoot from the hip in medical discussions infected new subjects as well. When the Chicago Medical Society arbitrarily decided on February 8 to subdivide the 550 members of the powerful Southern District Medical Society into three districts, the "South Side Branch" (as it was called) met in protest. Arthur Bevan, inadvertent inspiration for the "plague spot" characterization, was beside himself with rage over the action of the main Society. Much as he detested medical politics, he said (to applause from fellow members), he believed that "if a gang of political doctors" were going to make the Chicago Medical Society "a farce and a disgrace before the entire country," then "every man who believes in modern medicine as a science" must be ready to "fight the devil with fire." Now was the time, Bevan said,

to "show the entire profession of this country that the Chicago Medical Society has not degenerated into a lot of ward politicians, into a lot of Hinky Dinks and Bath House Johns and that we do not intend to have the Chicago Medical Society run like a ward political organization."³²

Although Dr. Frank Lydston also objected to the re-districting, he did a better job of keeping his head on this occasion. An outstanding urologist (and a faculty member at the P. & S.), Lydston immediately protested Bevan's imputation of corruption to those who happened to favor the subdivision: "I do not think Dr. Bevan meant some of the things he has said," Lydston observed.³³

Bevan found himself in trouble again when the AMA Council on Medical Education held its Sixth Annual Conference in Chicago in late February 1910. According to the *IMJ* for March, Bevan reported unfavorably on the medical schools of Chicago and then, with regard to medical education in general, "poured the following hot shot":

The standards of medical education in the United States are a disgrace to the nation and an outrage on humanity.

Thousands of physicians may be eliminated from the profession without any embarrassment to the public.

More than two-thirds of the medical schools in the country ought to be abolished.

Flirtations between universities and medical schools ought to cease and those institutions which have become involved in this sort of relation ought either to marry or get a divorce.³⁴

IMJ Editor Kreider, in his eagerness for material to use against the Board of Health, apparently mixed his sources in crediting Bevan with these inflammatory remarks. The April issue carried a brief but prominent "Correction of News Item," in which Bevan said that several statements attributed to him in the previous issue properly belonged to—President Pritchett of the Carnegie Foundation!³⁵

The March and April issues of *IMJ* devoted enormous space to other aspects of the Annual Conference of the CME. In his front-page editorial coverage in March, George Kreider seemed almost

exultant that so much of the news from the Conference was bad: "Again, it was shown that Chicago itself is the worst offender in America. Again, the Illinois State Board of Health was held up to ridicule and placed in a most unenviable position." This last was especially true, Kreider said, during Judge Olson's address complaining that in Illinois that there were "too many convicts engaged in the practice of medicine."³⁶

Kreider claimed that the Board had licensed 6500 practitioners since 1899, but had not revoked a single license in all that time.³⁷ Board President Webster responded that the medical profession of the state had failed to support legislation giving the Board power to revoke licenses—a fact Judge Olson also alluded to, in the full text of his remarks.³⁸ Noting that the legal profession policed itself in such matters, Olson urged his medical audience "to work for legislation to establish license boards with power to revoke licenses of physicians guilty of immoral conduct and for such offenses as dishonesty, conviction of crime, and addiction to the drug habit." (Judge Olson also believed responsibility for licensure should be lodged in some group other than the Board of Health: "That Board has its hands full with the question of public sanitation, quarantine and occasionally, it is said, *politics*.")³⁹

Kreider devoted eight pages of the April issue to a letter from an ISMS Council member who re-hashed a series of old complaints. He blamed Secretary Egan for introducing the Council into politics in 1901, when the osteopaths were helping to elect state legislators who favored separate licensure for sectarians; and he revealed that his own inspection of Chicago medical schools some years before had turned up 'laboratories' that, he said, "would not pass muster as chicken coops on a moderately well-regulated farm in Illinois."⁴⁰

Kreider himself contributed yet another editorial attack on Egan and the Board. He also printed a response from Egan, who tried to keep the fight on target by demanding again to know the "sources" of the "plague spot" designation and the specific steps his critics would have him take.⁴¹

By April some branches of organized medicine in Illinois, disgusted with the all-consuming debate, began to rally to the support of Egan and the Board of Health. The Henry County Medical Society, urging loyalty to "our State Board of Health," charged that Kreider's unrelenting vendetta had transformed the *IMJ*,



Erected in 1882, the original P. & S. building faced southward, across Harrison Street toward Cook County Hospital. Seen on the left of this photograph is the laboratory building added in 1892, reportedly the first to be erected by a private medical school in the United States. (Photograph published in Prominent Physicians, Surgeons, and Medical Institutions of Cook County in the Closing Year of the Nineteenth Century, with Biographical Sketches, Illustrated in Highly Finished Photogravures Direct from Original Negatives, Chicago, no copyright year. Archives, Library of the Health Sciences, University of Illinois at Chicago.)

supposedly the publication of the profession of the entire state, into the "organ of a few." The doctors of Henry County wanted no more "disgrace from this source."⁴²

Because of all that had happened after Flexner's visits, everyone involved with medical education in Illinois was to some degree prepared for the "Flexner Report," which the Carnegie Foundation released to the press on June 6, 1910, as the AMA annual meeting opened in St. Louis. Speaking for the CME, which had earlier given "Class A" rankings to several colleges Flexner condemned, Arthur Bevan promptly admitted that CME standards were perhaps lenient, but he reasserted his belief that Illinois schools as a whole were equal to those of any other state in the Union. The discrepancy in rankings apparently arose, he suggested (giving no hint of CME complicity), because the Carnegie Foundation was "working toward the ideal rather than the feasible."⁴³

Some pre-publication form of Flexner's text had reached members of the Committee on Medical Education of the Illinois State Medical Society in time for them to prepare comments for presentation at the Society's 60th annual meeting, in Danville in mid-May. But the Committee, which had apparently not reported to the Society since its creation in 1906, had little to say about the Carnegie Foundation report. It had inspected the Chicago schools—back in 1907—and said it could, on that basis, endorse the report Arthur Bevan had made to the CME Conference in February 1910. The Committee's brief report in Danville urged the creation of a separate board of examiners; opposed special legislation for sectarian licensure; and favored a law (if it could be gotten without arousing charges of "class legislation," forbidden by the Illinois Constitution) setting minimum financial assets for a medical school seeking a legislative charter.⁴⁴

The Society Committee was primarily concerned about the continued existence of "cheap schools" in Illinois, in addition to six osteopathic and other "drugless healer" schools. The economic problems of Illinois physicians were real, it said, and were likely to increase. "The profession is overcrowded not only with regulars," but with other practitioners who "are being multiplied at a rate never before experienced by the profession."⁴⁵

According to the *IMJ* account of the meeting the stenographer was unable to hear Secretary Egan's rejoinder to the Committee's

accusations. However, the next speaker, Arthur Bevan, heard him well enough to respond to what was apparently Egan's denial that Illinois licensure procedures were inadequate. Whereas Bevan said elsewhere that Illinois' medical schools were, overall, up to national standards, he told Society members that "the situation in this state is worse than in any other state in the Union"—a "fact," he said, "that can be established by definite evidence." At this point Bevan (or the recorder) became somewhat inarticulate in an intense search for emphasis: "The situation is not only worse here, but in any place in the world."⁴⁶

After months of sound and fury, the Board-Society debate had begun to burn itself out. There was only a brief parliamentary contention over the report of the Society Committee on Education. A motion to table, made by a delegate from Egan's home turf in Sangamon County, failed of passage "by a large vote." The Society adopted the report "by a considerable majority" and then, with an "almost unanimous" vote, pledged itself—without being specific—to "the highest ideals in medical education."⁴⁷



Criticism of Flexner would persist in Illinois for decades to come. As late as 1913, the chairman of the Chicago Medical Society Council Commission on Medical Education (who was also a member of the ISMS Committee on Medical Education) presented "facts, figures and comparisons" to refute Flexner. While not denying the need to improve Chicago's medical schools, this physician believed his data proved "that the much-quoted statement that Illinois is the 'plague spot,' the worst of places, in the educational universe is not true or just, and therefore should be resented by every loyal son of this state and every lover of truth and champion of fair play anywhere."⁴⁸

In 1910, however, the main opposition spokesman was James Egan. As Illinois' chief regulatory official—albeit against his will—Egan bore the brunt of Flexner's blame for the state's alleged distinction (Egan and others called it stigmatization) as the low-water mark of American medical education.

Flexner charged that, although the Illinois law vesting licensure powers in the Board of Health also gave it full authority to set admissions requirements, the Board was “unwilling to antagonize the schools” by enforcing even the requirement of high school graduation.⁴⁹ (There is irony—and, in view of Egan’s early death in 1913, tragedy—in this righteous indictment by the undercover agent of the CME. In 1928 Arthur Bevan would admit that the CME had sought Carnegie Foundation help in 1908 because “considerable resentment developed in the medical colleges” as a result of earlier CME reports criticizing the schools.)⁵⁰

In a passage studded with direct quotations which Flexner said he had “taken down on the spot in the course of interviews with officials [he did not say which officials],” he used Illinois as the worst possible example of non-enforcement of existing legislative provisions:

In Illinois, for example, the law speaks of ‘preliminary’ educational requirements; the state board graciously permits them to become subsequents. Students enter the medical schools, embark on the study of medicine, and at their convenience ‘square up’ with one of the examiners. An evening call is arranged; there is an informal talk, aiming to elicit what ‘subjects’ the candidate ‘has had.’ He may, after an interview lasting from thirty minutes to two hours, and rarely including any writing, be passed with or without ‘conditions;’ if with conditions, the rule requires him to reappear for a second ‘examination’ before the beginning of the sophomore year; but nothing happens if he postpones his reappearance until a short time before graduation. Besides, a condition in one subject may be removed by ‘passing’ in another! ‘No technical questions are asked; the presumption is that the applicant won’t remember details.’⁵¹

Flexner even coined the mocking phrase, “Illinois idea,” to designate the belief that students could cram the work of two high school years into one year of night pre-medical classes in English, Latin, and mathematics.⁵²

Egan opened his rebuttal with a lively lead article in the June issue of the *Bulletin*. He said that in December 1909, during Flexner’s second visit to Illinois, Egan and George Webster, President of the

Board, had explained to Flexner that in 1908, under pressure from "several state medical societies," the legislature had explicitly forbidden the Board to set any admission requirement beyond that of high school graduation. Still, Egan recalled, "Mr. Flexner insisted that he was in the right:" i.e., that the existing law permitted the Board to demand better preparation.⁵³

Displaying the "formidable intransigence" for which he was noted,⁵⁴ Flexner refused to acknowledge the fact that the Illinois legislature *had* amended the Medical Practice Act (Section 2-b), just as Egan said, limiting the Board's power to set entrance requirements beyond the high school level. This action (in 1908) negated the Board's decision, taken two years earlier, to begin requiring, effective January 1, 1910, nine months of college level work in chemistry, biology, physics and languages—an action which would have given Illinois a higher standard of entrance requirement than that of any other state in the Union at that time.⁵⁵

The Illinois Board had decided to raise its standard after the National Confederation of State Medical Examining and Licensing Boards, meeting in Boston June 4, 1906, unanimously adopted a report by the Committee on Entrance Requirements—a Committee chaired by Illinois Board President George Webster—urging two years of college as the minimum standard for admission. In his frustration at being blocked from requiring even one college year in his own state, Webster railed against the legislative amendment of 1908, which he called "one of the greatest barriers to medical educational progress in Illinois that was ever erected." He berated the ISMS for allowing the amendment to go through and for failing to attempt to secure its repeal, and he condemned the legislature itself, for creating "the most illogical, extraordinary and anomalous legislative educational provision, ... the only educational standard of which we know, either professional or general, which is determined and fixed by the Illinois legislature."⁵⁶

In December 1909, when Flexner questioned Webster's and Egan's understanding of the law, they appealed for an opinion from Illinois' Attorney-General. In January 1910 he ruled that "the Legislature has provided that the certificate of the State Superintendent of Public Instruction shall admit an applicant to a medical college" and that the Board had "no power whatever" to "go back of" this certificate. Flexner, with "an air of all wisdom," then



To accommodate an enrollment of 710 students at the turn of the century, P. & S. bought and renovated West Division High School, a huge building standing back-to-back with the original P. & S. and facing northward at Congress and Honoré. This makeshift facility, which Flexner visited in 1909, housed the University of Illinois College of Medicine from 1901 until the construction of the present buildings during the 1930s. (Photograph courtesy of the Archives, Library of Health Sciences, University of Illinois at Chicago.)

insisted that even the Illinois Attorney General was wrong about the Illinois law. He further criticized the Board for failing to go to court "to test a strict interpretation of the statute."⁵⁷ And he sent his *Report* into print without qualifying his devastating statements about the Board's alleged laxity.⁵⁸ Those who read Flexner's Report without the gloss supplied by Egan's *Bulletin* learn only part of the story.

A prodigious scholar of the literature of any subject he turned to, Egan passed along to his readers excerpts from Flexner's *Report* as well as samples of the spiciest criticism of Flexner, both lay and medical. Egan quoted the *New York State Journal of Medicine* on Flexner's "insolent self-sufficiency" and allowed himself the luxury of observing that Flexner, like O. Henry's character, Andy, in "The Octopus Marooned," "is some gravy on delivering himself of audible sounds relating to matters and conclusions."⁵⁹

As the state official who certified practitioners in Illinois, Egan was particularly concerned about the practical training medical students received, an area in which he doubted Flexner's critical faculties: "No where between the covers of this report can there be found the slightest inkling that Mr. Flexner possesses the qualifications enabling him to determine whether a medical college is properly equipped to teach medicine and surgery, and whether proper instruction in medicine and surgery is given."⁶⁰

Contrary to Flexner's view, Egan believed that many of the better schools were already emphasizing laboratory sciences to the neglect of the practical clinical training future physicians needed. Examples of the shortcomings that concerned Egan dot the pages of the *Bulletin* under his editorship. In the issue of June 1910, in which Egan commented at length on the Carnegie Foundation report ("long looked for and much heralded"), he also reported that not one in 125 medical graduates taking the state board examinations in Illinois in April had been able to describe a test for the determination of strychnine in cases of suspected poisoning—despite the fact that fifty-two of them came from the "three leading medical colleges of Chicago," that is to say, the three Flexner had approved. These new physicians did poorly also in materia medica, then still the foundation for much of therapeutics. Egan suggested that the colleges, in their enthusiasm for the "laboratory," might devote more attention to "things that are really 'worthwhile' to the future physician."⁶¹

Several months later, the neurology papers of some seventy candidates who took Illinois boards inspired Egan to write an editorial asking "Do Medical Colleges Teach Practical Medicine?" In response to a question about the symptoms and diagnosis of polio, only half of the seventy gave even a fair description, and fewer than half touched on the infectious nature of the disease. The others apparently confounded polio with other diseases involving the spinal cord. Some recommended the treatment of polio with "606" (Salvarsan, or arsphenamine, the organic arsenical for the treatment of syphilis which Paul Ehrlich had introduced a few months earlier).⁶²

Response to a question about pasteurization on the pediatrics examination was still more discouraging to Egan; health authorities in Illinois had not yet approved pasteurization as a general practice, thus leaving responsibility with individual physicians in cases where the milk supply was of doubtful quality. Only seven out of sixty-one medical graduates knew that the milk should be held at a temperature between 140 and 170 degrees Fahrenheit for a period of ten to thirty minutes and subsequently cooled rapidly. Candidates gave temperatures ranging from 67 to 572 degrees, over periods from five minutes to twelve hours.⁶³

Those who had earned MDs without acquiring this fundamental piece of preventive knowledge were by no means exclusively from the "so-called 'smaller schools.'" Egan came as close to naming the offending schools as the law would allow. A graduate of a school "which bears the hallmark of Abraham Flexner, lay critic of medical colleges," failed to give either a temperature or a time period, but said "the enzymes must be killed." (Enzymes, Egan noted, are the "life" of the milk, "playing an important part in digestion.") A graduate of a leading school—"one which, though scourged and chastened, has been received into the Flexner fold"—said milk should be held at 212 degrees Fahrenheit for over an hour. From a school "guaranteed, with certain restrictions, under the palpable favor and decry act of the Carnegie Foundation" came a graduate who would raise the temperature of the milk almost to the boiling point of mercury.

"For these graduates," Egan observed, "Gram's method of double staining possessed no terror. To them, the carrying out of the Widal test was but child's play, and a description of the *Spirochaeta pallida* came from their pens as rapidly as the ink would flow."



Arthur Dean Bevan (1861-1943), long Professor and Head of Surgery at Rush Medical College, around the time of his election to the presidency of the American Medical Association in 1918. Appointed to chair the AMA's Council on Medical Education at its formation in 1904, Bevan in 1908 welcomed support from the Carnegie Foundation for the Advancement of Teaching in honing an accreditation process that would ultimately halve both the number of American medical schools (from 160 in 1905 to 81 in 1922) and the number of medical graduates (from 5606 to 2529). Bevan's reference to Illinois in 1905 as one of "five especially rotten spots" in American education, reinforced by Flexner's designation of Chicago as "the plague spot of the country," remained the focus of professional dissension in Illinois for more than a decade. (Photograph courtesy of the Archive, American Medical Association.)



George N. Kreider, long-time editor of the Illinois State Medical Journal (1899-1913) and treasurer of the Illinois State Medical Society from 1891 to 1900, in his official photograph as Society president in 1901. After 1905 Kreider repeatedly used Bevan's "rotten spot" reference to spearhead the attack by the AMA/ISMS against the Springfield-based Illinois State Board of Health and its ally, the Chicago Medical Society. Between Flexner's two Illinois visits in 1909, the Kreider forces railroaded through the Southern Illinois Medical Society (an AMA constituent) a resolution blaming the Board of Health for the "fact" of Illinois' "plague spot" status. This action compelled Flexner, a covert agent of the AMA, to retain the "plague spot" designation in his published report, whether or not his data supported it. (Photograph courtesy of the Illinois State Archives, Springfield.)

Learned in laboratory lore were they,
But they couldn't feed the baby!⁶⁴

Egan questioned not only Flexner's competence but also the speed with which he made his rounds. (The fact that Flexner used CME data remained hidden until long after Egan's death.) Of Flexner's equally broad indictments of Maine and of California, where he said that seven of the state's ten existing schools "could be wiped out 'with distinct advantage to the public health of the state,'" Egan wrote: "From the Atlantic to the Pacific, Mr. Flexner leaves a trail of blood and carnage." The entire performance reminded Egan of a quotation from Lawrence Sterne: "I pity the man who can travel from Dan to Beersheba and cry, 'Tis all Barren!'"⁶⁵

What the Carnegie Foundation called a "*careful* personal inspection" Egan described as "a meteoric dash through the western states." He noted: "Mr. Flexner, according to his own published itinerary, inspected thirty-four schools in six different states (Colorado, Illinois, Iowa, Missouri, Nebraska, and Utah) in thirty days—in the month of April 1909, in which there were four Sundays. This is going some, if we may be pardoned the colloquialism."

Flexner had "dropped off in Illinois" and inspected ("as only he inspects") twelve medical colleges, one osteopathic institution ("which Mr. Flexner classes as a medical college"), three post-graduate schools and one specialty school. Egan described these flying visits as "farcical examinations," using successive issues of the *Bulletin* to supply background details Flexner's readers would not find in the *Report*. For example, at Hahnemann Medical College in Chicago, which Flexner condemned outright despite its class A ranking by the CME, the registrar had told Egan that he had no official knowledge of Flexner's visit, but had heard that he had inspected "with the aid of the janitor and a student or two."⁶⁶

Whether or not Flexner overestimated his own powers of rapid judgment in making his tours so brief, it is true that he concentrated on the scientific basis of medicine to the neglect of clinical education. Preventive medicine and public health were altogether beyond his interest, and he had little appreciation either for the practitioner's role in medical education or for the worth of the post-graduate medical study we now call continuing medical education.⁶⁷

On visiting the Chicago Polyclinic in December 1910, he found that a young man was sitting in for the regular instructor in clinical microscopy. Learning that this youth was a first-year student in a Chicago night school of medicine, Flexner left in disgust, without further interest.⁶⁸ His contempt for night education in medicine aside, it clearly did not occur to him that a first-year student could impart worthwhile information and techniques to practitioners who had finished their education before the microscope had become a useful diagnostic tool with therapeutic significance—i.e., with the introduction of diphtheria antitoxin in 1890.

Again, in 1919 Flexner rejected Nathan Colwell's suggestion that a new Rockefeller gift for medical education be used, at least in part, to retrain the thousands of practitioners who had graduated from old-time medical schools. The money went instead to increase faculty salaries in schools that were already vastly superior.⁶⁹

Secretary Egan was right in thinking that Flexner's credentials, however excellent as educator and writer, had little to do with medicine. One of nine children of Jewish immigrant parents whose wholesale hat business had been hard hit in the Depression of 1873, Flexner had obtained an education with the help of an older brother who was a pharmacist. A baccalaureate in 1886 from the then-new Johns Hopkins University, he had founded and operated a college preparatory school in his native Louisville, Kentucky, before taking a master's degree at Harvard in 1906. The following year he studied comparative education at the University of Berlin, an experience that apparently strengthened his enthusiasm for the German university system and inspired him to urge that all of American higher education be restructured along similar lines, as exemplified by Hopkins.⁷⁰

The American College, Flexner's critique of American higher education published in 1908, brought him to the notice of Henry S. Pritchett, President of the Carnegie Foundation, just as that philanthropic institution was considering how best to help organized medicine reorder American medical education. Pritchett asked Flexner to survey North American medical schools, despite the fact that Flexner had no special knowledge of the field. (Simon Flexner, the younger brother whose way Abraham had helped to pay through The Johns Hopkins University School of Medicine, was a protégé of the Hopkins' "Influential," William H. Welch, the pathologist. Simon had served on the Hopkins faculty before

becoming Director of the Rockefeller Institute for Medical Research in New York City. Through Simon, Abraham came to know Welch, as well as Franklin Paine Mall, the Hopkins anatomist, whose rarified ideas about medical education greatly influenced his own.)⁷¹

Flexner's tenuous medical credentials appeared an asset to Henry Pritchett, who told Flexner, "This is a layman's job, not a job for a medical man." The great foundations of that period tended to consider laymen the best judges of what the country—including the professions—needed in the way of change. When Andrew Carnegie warned Flexner that he would not be able to change the thinking of the men who dominated medical education, Flexner replied (or so he later boasted), "I don't plan to change them. I propose to get rid of them."⁷² In another of his memorable phrases, Flexner later stated that he considered his "unfettered lay mind" to be one of his outstanding qualifications for the work of re-making the country's system of medical education.⁷³

From the autobiography Flexner published in 1940 (re-published in revised form in 1960, the year after his death), and from recent scholarship based on his manuscripts, we know that in 1910 his mind, however "unfettered" by medical knowledge, carried a heavy freight of preconceptions about the superiority of the Hopkins system and the particular iniquities of the medical profession in Chicago. The more we learn about Flexner through his writings and those of his contemporaries, the more clearly his bias asserts itself.

Although his 1910 *Report* correctly credited Northwestern (formerly Chicago Medical College) with having been the first American medical school to initiate the three-year graded curriculum, he later overlooked this fact while listing efforts that had preceded his own in the reform of American medical education. In the later version Flexner erroneously credited Harvard, rather than Northwestern, with taking the first courageous (and costly) step of raising requirements.⁷⁴ He thus perpetuated an error Chicagoans had been trying to correct for decades. As early as 1880 Nathan Smith Davis had objected to the name, "the Harvard Plan," for the graded three-year curriculum inaugurated by Chicago Medical College in 1859: Harvard did not introduce it until Eliot's presidency, after 1870, more than a decade after it began in Chicago. (Davis believed this misappropriation of credit, which

grew out of an error for which President Eliot apologized, was merely one more sign of the "Pecksniffian assumption that there is nothing of value or importance in the medical institutions of this country outside of that circumscribed strip of territory, lying between the eastern part of the Alleghenies and Plymouth Rock.")⁷⁵

To many Illinoisans in 1910, Flexner—his Kentucky origins obliterated by years in the East and in Europe—sounded Pecksniffian all over again. Arguing by analogy from the fact that the power loom had displaced hand-spinners, he stated flatly that the "poor boy" has "no right, natural, indefeasible, or acquired, to enter upon the practice of medicine unless it is best for society that he should." Low admissions standards benefited poor schools, not poor boys, he reasoned. The "earnest poor boy" would have no trouble meeting the standards Flexner wanted to see adopted: "He need only take thought in good season, lay his plans, be prudent, and stick to his purpose." To someone without these capabilities, medicine would not be the right calling anyway; "with them, poverty will rarely block his way."⁷⁶

Secretary Egan of the Board of Health quoted the Maryland *Hospital Bulletin* on this point: "Mr. Flexner does not believe in the 'poor boy' plea, and his attitude toward the poor boy is very much like that of the late Mr. Vanderbilt toward the public." (Commodore Vanderbilt had immortalized his generation of late nineteenth-century "robber barons" with the words, "the public be damned.") Although Egan thought the Maryland editor perhaps exaggerated in saying that medical education à la Flexner would become "an aristocracy, rather than a democracy," he had personally heard Flexner say that at least two college years must precede any truly adequate medical education.⁷⁷ Egan rightly believed that this requirement would rule out many aspiring physicians, in Illinois and elsewhere.

Flexner's flip dismissal of the expense entailed in the system he advised prompted Egan to share with his readers another Flexner proposal. In a conversation with Egan the preceding December, Flexner had argued that practical, not written, exams were the only real test of a physician's qualifications. The plan he mapped out would extend over a period of eight to ten days. To Egan's objection that this method would involve horrendous expense, Flexner had answered: "That may be covered by charging each candidate a fee of \$100.00."

One hundred dollars! Here is the voice of 'unlimited wealth,' with a vengeance. What do you think of this, medical men of Illinois, especially those of you who found it difficult 'to make both ends meet' during your college course? (We were in that class.) [Egan took his M.D. at Northwestern in the depression year of 1893.] How does this proposition strike you, physicians of the Prairie State who faced a trying problem in 'ways and means' when it became necessary to pay the modest sum of fifteen dollars required by the Illinois State Board of Health for examination and licensure? What would you have done if the 'Flexner system' had been in vogue when you came up to qualify in Illinois? But our questions seem superfluous for under the Flexner ideals, few of us could have been graduated, and the fees necessary for the state examinations would have been of little consequence.⁷⁸

Flexner's disdain for Chicago extended to the organizations of the medical profession whose zeal for professional regulation the Carnegie Foundation was supposed to be implementing. Despite the fact that between 1906 and 1910 evaluations by the AMA's Committee on Medical Education had contributed to the demise of some thirty schools deemed inadequate, Flexner subtly downgraded this achievement. The CME, he said, had been "cautiously telling the truth and holding annual meetings in Chicago since 1904." He later characterized the AMA as the "advertising center in medical education," observing with scorn that the Association had "for years tried to make the world think that Chicago was the medical center of this country."⁷⁹ (In his *Report* he used quotation marks around "great medical centers" to indicate sarcasm when he used the phrase to refer to Philadelphia and Chicago.)⁸⁰

If the AMA seemed to be in the business of exaggerating the medical excellence of Chicago, where the Association had its headquarters, Flexner usually erred in the other direction. Nothing that happened in Chicago seemed to strike him as worthwhile. He snidely described the city as "varied and picturesque" in all that pertained to medical education.⁸¹ Charles Bardeen, Flexner said, had "wrought a revolution" in the laboratory departments of the University of Wisconsin Medical School by bringing Hopkins graduates onto the faculty there;⁸² but Illinois got no credit for its

comparable efforts. Flexner either did not know or did not care to mention that, as early as 1892, the year before The Johns Hopkins University Medical School opened, the "old P. & S." of Chicago had erected a new building specifically for laboratory teaching in the basic sciences, becoming the first private medical school in the country to do so and thereby setting a new standard in the Chicago area that Rush and Northwestern emulated within a year. Nor did Bulletin Number Four mention that P. & S. was one of the first schools in the nation to teach bacteriology by the laboratory method.⁸³ Like his appreciation for the College's outstanding library, Flexner's praise for physiology at P. & S. (where the department head was a former Hopkins faculty member hired at P. & S. on a full-time basis in 1900) was muted and separated in his text from his main discussion of the school.⁸⁴

Flexner's section on Rush in the 1910 Report suggests that he already shared the distaste for that school that prevailed at the Rockefeller Foundation, where Flexner worked after 1913. As he later recalled, John D. Rockefeller and his adviser, Frederick T. Gates, abandoned all interest in medicine in Chicago—for a period of twenty years after 1897—because they were "properly indignant" that President Harper, ignoring their counsel, had placed the University of Chicago School of Medicine at the University's Hyde Park campus, while locating the clinical years at Rush, in the city's Near West Side.⁸⁵ "A divided school," Flexner intoned in 1910: "Pedagogically, the two branches do not form an organic whole." He blamed geographic separation for the fact that laboratory scientists at the University were unsure "as to how far the presentation should be deliberately medical in aim." Although it was Rush's clinical facilities which, in his opinion, made it superior to Northwestern and P. & S., Flexner also declared that, as of 1910, the Presbyterian Hospital which was Rush's primary clinical facility was "not by any means a genuine teaching hospital."⁸⁶

For all its faults, Flexner found Rush the most nearly acceptable of Chicago's fourteen schools, primarily because Rush had entrance requirements he considered adequate: Rush students had already met University of Chicago admissions standards and completed two years of basic sciences before pursuing clinical work.

Entrance requirements ranked high on Flexner's list of criteria, as his attacks on the ISBH and the P. & S. indicate. He expressed



Beginning in 1898, a husband-and-wife team taught anatomy at P. & S. William Thomas Eckley (Professor) stands at the center; Corinne Buford Eckley (Demonstrator) stands behind the third table on the left. Known affectionately to the students as "Pop," Professor Eckley also served as Director of the Museum beginning in 1901. (Photograph courtesy of the Archives, Library of the Health Sciences, University of Illinois at Chicago. Taken from Prominent Physicians, Surgeons, and Medical Institutions of Cook County in the Closing Year of the Nineteenth Century, with Biographical Sketches Illustrated in Highly Finished Photogravures Direct from Original Negatives, Chicago, no copyright year.)

concern that students currently being admitted to medical schools were too immature to permit the concentration of subjects he considered necessary for the most effective education. Flexner wanted to see all of anatomy mastered, for example, before teachers attempted to introduce any physiology. But young students, with the limited attention spans of teenagers, had to have "knowledge carefully administered in homeopathic doses."⁸⁷

Brief concentration span was only one consequence of current admissions policies. Between Flexner's two visits to Chicago in April and December 1909, he missed a more concrete demonstration of the consequences of student youthfulness: a spectacular outburst of the kind of violence then common among American medical students, who were often barely the age of college undergraduates today. During the annual fall "class day rush" at the P. & S., in which incoming students traditionally challenged the physical supremacy of the second-year class, the usual rough-and-tumble got seriously out of hand, escalating beyond the ordinary smashing of furniture and tossing of students out of windows. The autumn ritual in 1909 led eventually to a blockade of streetcars, a police riot call, and the intervention of the Chicago fire department. "No one was killed," the *IMJ* reported in its November issue, "but several required surgical attention."⁸⁸ (Incidents of this kind may also testify to the ready personal violence of that day in what was still often called "The West." The same issue of the *IMJ* reported that a physician in Paradise, Coles County, had surrendered to authorities in Mattoon after shooting and killing a neighbor during a "quarrel over the depredations" committed on his property by the victim's hogs.⁸⁹

We often forget, perhaps because of the rigid standardization of medical education that occurred in the wake of Flexner's *Report*, that he actually advocated not a single standard of admissions but rather three concurrent levels, at least for a time. In the South, where public high schools were just beginning to develop ("on the admirable model furnished by the robust communities of the middle west"), he suggested that the "state university standard" go into effect beginning in 1911: that is to say, students would be required to graduate from high school before beginning medical studies. ("A highly useful doctor can be trained on the high school basis if his defects, frankly admitted, are made the occasion for more, instead of less, efficient instruction," he said.) For the rest of the country, he advocated two years of college as the legal

minimum for medical school admission. A small number of institutions, where he found high standards already in effect in 1909, should begin at once to require a college degree for admission.⁹⁰

Among the circumstances peculiar to Illinois that eluded Flexner was the fact that a large part of the state qualified for inclusion in his considerations for "the South." Whether judged by Flexner's own criterion (the state of development of public secondary schools) or by settlement patterns and folk-culture, much of Illinois was more closely identified with the South than Flexner realized, with a strong tradition of private, denominational education. Not until 1905 did the Illinois legislature provide that any school district *might* establish a public high school, if it wished to do so. In 1917 there were only 193 public high schools in the entire state. So many districts still had none that the legislature authorized a special tax to pay the tuition of eighth-grade graduates in non-high school districts who wanted to attend the nearest high school.⁹¹ Because Flexner failed to grasp this fact about the state, along with other manifestations of Chicago/Downstate differences, his doctrinaire prescription utterly failed to accommodate Illinois' particular circumstances.

Another local condition that affected Flexner's response to Illinois—and vice-versa—was the existence of a number of night medical schools in Chicago. As the seat of the radical labor movement in the United States, Chicago had long presented a special challenge to socially conscious educators who wanted to make knowledge of all kinds accessible to the working classes. The city that was both "Hog Butcher to the World" and the home of William Rainey Harper's new University of Chicago had been quick to join the movement to make extension work an essential instrument of higher education in America, a movement led by the American Society for the Extension of University Teaching, based at Philadelphia under Edmund Janes James. At the organization of the University of Chicago in the early 1890s, President Harper established extension work as one of the University's three major divisions, with James (who would become President of the University of Illinois in 1904) as Dean of the College of Teachers.⁹² By 1905, an estimated 1600 Chicagoans attended one type of night school or another, with almost three-fourths of the city's law schools conducted at night (the ratio nationwide was 25 out of 202).⁹³

The question of recognition for night schools of medicine first arose in Illinois while John Peter Altgeld was Governor (1893-1897). Altgeld's appointee as President of the State Board of Health, the state medical licensing body, was William E. Quine, an outstanding physician and medical educator who was as devoted to educational opportunities for all citizens of Illinois as Altgeld was himself. Quine, who had served on the P. & S. faculty since 1883, was a leader in that school's reorganization in 1891, launching the College into laboratory teaching and simultaneously opening its work to graduates of sectarian schools. This combination of moves had led to a rapid surge in enrollment and to lease affiliation with the University of Illinois in 1897.⁹⁴

As President of the Illinois Board of Health, Quine at first opposed the recognition of night medical schools; in September 1893 the Board found Harvey Medical College "not deserving of approval." Quine and his Committee on the Administration of the Medical Practice Act kept open minds, however, as Harvey struggled to meet the stipulated requirements. In June 1895, the Board's Committee granted recognition to Harvey and also to a second night school, Harvard Medical College (later called Jenner). By 1904 the Board required that night medical schools provide four years of six-month terms, with a minimum of five classroom hours nightly. (In order to retain recognition, schools giving only three hours of instruction each evening were forced to extend their total course to six years. Nonetheless, of four medical night schools in the United States in 1910, three were in Chicago.)⁹⁵

Interest in this matter ran so high in pre-Flexner Illinois that the Physicians' Club of Chicago made "The Place in Medical Education of the Evening Medical School" the topic of its meeting in December 1904. As reported in the *IMJ* of February 1905, this debate provides an extraordinary record of conflicting views about who should be able to study medicine.⁹⁶ Chicago's medical educators by no means agreed that the advance of science, which dictated increased length and expense of medical education, should also result in restricting professional training to those who could afford not only high school and college education but four additional years of full-time study.

Proponents of night medical schools argued that other forms of higher professional and scientific education were not restricted to those able to afford daytime study, and that medicine should not be

restricted either. The physician who had headed Harvey since 1894 suggested that the motivation, maturity, and life-experience of those who sought night-school opportunities made them better students than those able to attend by day. Many day students, she said, were "callow, soft and mealy youths who know no value of time and put no value to their parents' money." Despite having to work by day, Harvey graduates, she proudly noted, had ranked second only to Northwestern's in three of the preceding five years of Board examinations and had never fallen below third place among the fourteen medical schools in Illinois.⁹⁷

The President of Jenner Medical College believed the "sunset college" needed no defense, having the same place in medical education as the day school. "Any man or woman of sound mind and good judgment with the requisite literary education has a constitutional right to study medicine."⁹⁸ D. A. K. Steele, a founder of the P. & S. and major architect of its University affiliation, admitted that inspecting one of Chicago's night schools had converted him to their support (as it had converted Board President Quine).⁹⁹

Opponents expressed the fear that students would be less than alert after doing a day's work elsewhere, perhaps even falling asleep in class. (To this several panel members retorted that one could find sleepy medical students in almost any class, whatever the hour.) To the charge that the only motive of faculty in a night school of medicine was to build consultation opportunities among the doctors of the future, a defender replied that this was also the case with some day school faculties.¹⁰⁰

An overriding concern apparent in this debate was the fear that night schools were making a "business" out of medicine, degrading the social status of the profession. As President of the AMA in 1903, Frank Billings said that medical education in the United States had been "prostituted" by the proliferation of schools, including evening schools: "These sundown institutions enabled the clerk, the street-car conductor, the janitor, and others employed during the day to obtain a medical degree." Billings sought to halt the "evil of an overcrowded profession" by ending the "ease and facility with which a medical degree may be secured."¹⁰¹

Speaking before the Physicians' Club in 1904, Billings suggested that "if an individual have [sic] the right stuff in him he will be

able to secure enough money by some means" to attend full time during the day. George W. Webster, President of the Illinois State Board of Health, answered Billings' objection with figures indicating that many day students were also forced to work to meet the rising cost of medical education—thus being no more truly full-time than those attending the much-maligned night schools.¹⁰²

A participant in the discussion stated flatly that the profession should "choke off all night medical schools," because of the "sort of doctors" they created. "Imagine the barber who shaves you for a number of years one day saying 'Congratulate me, I am a colleague of yours. I have just graduated from Harvey.'" This doctor blamed diploma mills and night schools, "both products indigenous to free America," for the fact that in foreign countries American practitioners were looked upon as "mere pretenders." Joseph Zeisler, one of Chicago's leading dermatologists, agreed that night schools tended "to create a class of doctors who instead of elevating, must inevitably lower the plane of the profession."¹⁰³

ISBH President Webster and Secretary Egan repeatedly insisted that the Board was holding night schools to adequate standards. To support his contention that not even the best day schools were necessarily superior, Egan told of a candidate the Board had recently examined, "a graduate of a leading college of a regular school located not a thousand miles from Mason and Dixon's line." This man had failed the Board's questions about therapeutic indications, dosage and method of administration for morphine, digitalis, phosphorus, strychnine and belladonna. According to the examiner, "this man would have killed at least ten patients with these doses." Egan said that the day school in question had sent up for certification many other candidates equally ill-equipped. In place of the stated question for the evening, he therefore proposed another: "What is the place in medicine of a day school that graduates a student who gives answers such as these, who, if permitted to practice, would scatter death and destruction wherever he went, murdering not only innocent patients but the English language also?"¹⁰⁴

Deciding the recognition or non-recognition of medical schools was a task fraught with special difficulties in a state where sectarian medicine had such great strength—and where the law failed to protect the Board from mandamus actions and damage suits by angry proprietors. The nineteenth-century flood of German

immigration into Cook County had eventually created a population of homeopathic physicians said to outnumber that of Germany, where the sect had begun in the 1830s. Chicago's homeopaths not only had great numbers; they had a large, wealthy clientele which gave them social and political clout, a powerful segment of the city's lay press, and one of the best endowed medical schools in the city—a school accepted in the CME rankings in 1906-07 and again in 1909-10.

In addition to the homeopaths, Illinois harbored many other sectarians, with a number of schools that had increased rapidly in the 1890s. By the turn of the century, the Illinois State Medical Society was seeking a revised Medical Practice Act in hopes of reducing the physician population flowing out of twenty-five schools where there had been but five when the 1877 Act passed the legislature. The Chairman of the ISMS Legislative Committee said these schools could be classified as verbs had been in his boyhood—"regular, irregular, and defective." The *IMJ* said it did not have space enough to name "the half hundred or more schools of all kinds and varieties, night and correspondence, missionary and sectarian, osteopathic and chiropractic, ophthalmic and paupathic"—schools which had come and gone, the editor complained, "without protest or hindrance from the constituted state authorities or anyone else." (He credited the great proliferation of Chicago schools in the 1890s to the success of P. & S.)¹⁰⁵

There was ongoing debate through the first decade of this century between those members of the medical society who wanted sectarians denied access to the standard examinations given under the Medical Practice Act and the Secretary of the Board, whose strategy was to require separate examinations for sectarians—or as he put it, to "round 'em up and brand 'em." Chicago's irregular schools often escaped action (if not notice); Flexner, for example, treated the Littlejohn (Osteopathic) College as a medical school, but he made no mention of the American College of Mechano-Therapy, the McCormick Neurological College, the Oakley-Smith College of Nahprapathy, or the National School of Chiropractic and Physiological Adjustment.¹⁰⁶ The constitutional provision forbidding class legislation made it necessary for regulars, seeking to eliminate such institutions, to appear to be acting for the public good, any advantage to themselves appearing as purely incidental.



Among the observers at this surgical clinic are a number of women (first admitted when the P. & S. affiliated with the University of Illinois in 1897). J.B. Murphy's presence on the faculty (1893-1901) was a source of great pride to P. & S. students, who incorporated his name into a school cheer and designed a pin touting his "Murphy Button" technique of intestinal anastomosis. (Photograph donated to the Archives, Library of Health Sciences, University of Illinois at Chicago, by Terrence S. Norwood, Archivist, Cook County Hospital.)

By comparison with sectarians the night schools were easy targets. They had no organized societies of their own because all of them were regular; yet most of the profession frowned upon them. They had no associations of alumni to support them. Night medical schools could not have existed at all, but for a handful of physicians like Quine, Webster and Egan, who were ever on the alert against elitism disguised as concern for adequate standards.

Flexner dismissed night medical schools in the first footnote to his section on Illinois, without any consideration of their special function in a society founded on ideals of social and professional mobility. (Alfred Reed, who did a comparable Carnegie Foundation study of legal education, argued, in contrast, that night schools of law, accessible to the working class, were vital to the public and political role of law in a democracy.) Like many Chicago critics of night medical schools, Flexner doubted that any one could acquire an adequate medical education in the evening hours, after doing a full day's work in the shop or factory or school. He further argued that laboratory work by artificial light was unsatisfactory and that clinical training at night must be limited by the patients' need for rest.¹⁰⁷

Many Illinois physicians believed night school graduates were flooding the professional marketplace. Such arguments ignored the fact that the night schools were primarily feeder schools for the larger, day colleges; only a small percentage of night school students pursued their entire medical education in these schools. Contrary to their opponents, night schools did not contribute substantially to the swelling physician population. Out of 1500 students admitted between 1894 and 1904 at Harvey Medical College, which was widely acknowledged as the best of Chicago's night schools, a total of only 150 had graduated—or about the number that each of the larger schools graduated annually. In the State Board exams of 1909, the two remaining night schools had graduated only 35 of the 650 physicians applying for licensure. In May 1910 Secretary Egan reported that Rush, Northwestern and the P. & S. had furnished 59 percent of the 290 medical graduates taking board exams in June 1909, the remaining 41 percent being apportioned among 24 colleges of Illinois and other states.¹⁰⁸

An exemplar of the unique purpose served by Chicago night schools was William Webster Root, a Cornell graduate who studied for one year at National Medical College and one at Harvey while teaching chemistry by day. When Root could finally afford it, he studied by

day at P. & S. (where in 1902 he founded Alpha Omega Alpha, the national medical honor society) and at Rush (where he took his M.D. in 1904).¹⁰⁹ Thus it was a product of the night schools Flexner dismissed as “out-and-out commercial” who gave American medical education its own scholarly society, equivalent to the Phi Beta Kappa of liberal arts studies and the Sigma Xi of science. Yet Root’s determined quest for medical education despite lack of resources represented precisely the sort of academic odyssey Flexner and many physicians wanted to eliminate for future generations.

Another “émigré” from Jenner Medical College—one of the “lame ducks” Flexner criticized P. & S. for admitting too freely—was George Dohrmann, who had come from Germany to work in Chicago. As he had hoped on leaving his impoverished family in Germany, he was able to earn enough money in Chicago, working as a bookkeeper and clerk (and translating the *Livestock Report* into German for non-English reading farmers in the Midwest), to attend first Jenner and then P. & S. Taking his M.D. in 1901, Dohrmann became the first of three generations of physicians. He practiced in Chicago until his death in 1953, having served long and honorably as Chief of Staff at Grant Hospital and as President of the German Medical Society.¹¹⁰

Bulletin Number Four took P. & S. (where the egalitarian Quine was Dean from 1897 to 1914) severely to task for admitting students from such institutions as Harvey (which went out of existence in 1905) and Jenner (after 1917 a part of Chicago Hospital College of Medicine, now the Chicago Medical School). Flexner named other transgressors in this regard: the Medico-Chirurgical College of Philadelphia, Jefferson, Tufts, Valparaiso, and Northwestern (where Ann Arbor failures often found haven). In Flexner’s opinion, however, none apparently offended so frequently as “the medical department of the University of Illinois [which] fairly abounds in rejected students from other schools, and in emigrated students from the low-grade institutions of Chicago and elsewhere.”¹¹¹

In the face of Flexner’s onslaught, Egan and Quine abandoned efforts to sustain educational opportunity for the less-than-affluent. A few months after the publication of Bulletin Number Four, the ISBH resolved to withdraw recognition from Chicago’s two remaining medical night schools, effective at the close of the 1910-1911 session.¹¹²



In December 1910 representatives of the schools that survived Flexner came before the Physicians' Club of Chicago to discuss "What Illinois Needs in Medical Education." In his introductory remarks Chairman James B. Herrick invited remedies for the fact, discovered by Flexner, that there was "a most heterogeneous mass of medical schools" in Chicago, "a plague-spot in medicine."¹¹³

Having gotten the Carnegie Foundation to play villain, the AMA could now appear magnanimous toward the city's beleaguered medical educators. Arthur Bevan reported to the Physicians' Club that the CME was giving Class A and Class B rankings to six Chicago colleges: Rush, Northwestern, the P. & S., Hahnemann, Valparaiso, and Loyola (the last three of these condemned by Flexner). Of the other schools surviving in Chicago at that time, the CME gave failing marks to National Medical University, Jenner, Hering, Bennett and the College of Medicine and Surgery (Physio-Medical). Bevan also said that the CME would be content, for the time, to see high school graduation continue as the admission requirement, so long as the universities of Illinois took responsibility for medical education.¹¹⁴

A spokesman for the new medical school of Loyola University (made up of Reliance and Illinois Medical Colleges, with the later addition of Bennett) defended the fairness with which Secretary Egan and the Board of Health had previously enforced the existing law. He denied that Egan had "cringed" before the schools—thus revealing to us a charge against Egan omitted from the recorded discussion as the *IMJ* published it in the issue of January 1911. He also expressed Loyola's willingness to raise its standards if the other surviving schools would also do so: "but you must not think we are going to sit idly by and let Mr. Flexner, or Mr. Carnegie, or anybody crush us out of business for the sake of the three schools that may surpass us in numbers."¹¹⁵

A spokesman for Northwestern, which had just received \$250,000 to help lift its medical research to a Flexnerian level, explained that, as of the fall of 1911, two college years would be required for admission. The Northwestern representative euphorically urged President James of the University of Illinois to double the request for \$100,000 which James said he planned to make to the

legislature for the benefit of the state medical school.¹¹⁶ William Tudor ApMadoc, a Republican legislator from Cook County who attended the meeting, joined in the counsel of courage, especially in view of the recent generosity to Northwestern by James A. Patten, "King of the Corn Market." ApMadoc said that "the state of Illinois which yields a larger corn crop than any other state should at least give that much for this worthy purpose." The Club's minutes recorded "applause" among what was apparently an energetically pro-P. & S. group. President Judson of the University of Chicago was similarly supportive of the state medical school—and equally eager to see it raise standards.¹¹⁷

In a speech which was the main (invited) presentation of the evening, President James made it plain that, if the P. & S. faculty had had the means, they would have begun raising standards long since. In 1908 the faculty had agreed (in advance of the ISBH decision to go to the college standard) to begin requiring one year of college for admission beginning in 1910. But declining medical school enrollments, together with P. & S.'s total reliance on fees for its continued existence, soon forced salary cuts for the few faculty who received pay for their services. In 1909 the faculty reversed its former decision to require a college year, thus bringing a reprimand from President James about the impropriety of such unilateral action, taken without consulting the University's Board of Trustees.¹¹⁸ James was always pressing P. & S. to raise standards, and the College complied whenever it could do so—up to, but not into, the abyss of bankruptcy.

As James explained to the audience, he had begun to form his own ideas about medical education thirty-five years before. As a student of public administration at the University of Vienna in the 1870s, he had imbibed social theories propounded somewhat earlier by the great physician-statesman, Rudolph Virchow: namely, that the welfare of a community depends upon the physical health of its individual citizens, and that the state must therefore do all in its power to preserve public and private health. In order to be the sound advisors of government, as this theory required, physicians must have liberal education as well as scientific knowledge and skills.¹¹⁹

James had worked out a medical curriculum to meet these goals while serving on a committee, appointed in the late 1880s by Provost William Pepper at the University of Pennsylvania, to



Inside the laboratory addition of 1892. P. & S. was the first medical school in Chicago to teach bacteriology by the laboratory method, gaining wide attention for its innovative approach through an exhibit of student drawings and exercises at the American Medical Association meeting in Detroit in 1892. (Photograph courtesy of the Archives, Library of the Health Sciences, University of Illinois at Chicago. Taken from H. E. Cutler, ed., Medical and Dental Colleges of the West, Chicago, 1896.)



West Division High School afforded P. & S. a more spacious library, newly electrified but with the old gas fixtures still in place. Because William Quine had made substantial and continuing contributions of books, journals and funds beginning in 1882, when he joined the faculty, his colleagues in 1899 designated the school's holdings "The Quine Library." During the early 1900s, the library actively sought to acquire complete sets of European and North American journals in the clinical and basic sciences areas, as well as bibliographic guides to the research literature of the biological sciences. Even the grudging Flexner admitted that P. & S. had "a large library." (Photograph taken from Bulletin of the College of Medicine of the University of Illinois, January 1902, courtesy of the Archives, Library of the Health Sciences, University of Illinois at Chicago.)

study integration of the professional schools with the medical college and the technical schools. At that time James had recommended a seven-year medical course of study following high school. This would consist of two years of liberal arts (as the first two years of college); two years of "the underlying sciences of medicine" (chemistry, physics, biology, anatomy and physiology); two years of clinical instruction; and a final year of practical hospital work.¹²⁰

On re-examining this proposal in 1910, James believed that it remained the best possible course, and it was the one he wanted the University to adopt as soon as practicable.¹²¹ Thus President James and Abraham Flexner advocated similar methods of medical education, although for different reasons. James once told a newspaper editor that he cared little for "the contests among the various medical sects and divisions, except as a citizen who has suffered much at the hands of physicians of all schools."¹²² He was concerned above all to produce graduates who would practice the most effective therapeutics possible at that time—and also be wise, socially responsible counsellors in matters of public health and preventive medicine. To Flexner, constructing the ideal medical curriculum appears to have been an intellectual exercise, an abstract process little concerned with application, "a game," he later said, "which I have had the opportunity to play with other people's money."¹²³

In 1910, however, in order to implement James' goals it was necessary to find the money required to meet Flexner's vaulting criticisms of the old P. & S. If the University of Illinois was to continue trying to educate physicians, the legislature would have to appropriate money for that purpose, as it had learned to do for the study of law, of engineering, and even of music.

Twenty years after its first efforts at affiliation with the University, P. & S. was still struggling to survive under a lease which was really nothing more than a revolving fund: P. & S. turned over student fees to the University which used them to pay P. & S. bills. The College had never received help either from the University or from the State. With enrollment at 517 in 1910 (approximately 60% of them Illinois residents), P. & S. had a teaching staff of 198, only a small number of them salaried.¹²⁴

Flexner's *Report* mentioned that the University affiliation was only a "contractual relation" (of the kind that "obstructed nature's own effort at readjustment," by delaying the "sloughing off" of inferior schools).¹²⁵ In fact, the University contributed no money to the cost of educating those who took its M.D. P. & S. relied for support wholly on fees, estimated at an annual total of \$80,155, and on contributions by faculty and friends. The superb P. & S. library, 12,000 volumes by 1913, had grown wholly out of gifts of money and books from faculty, primarily Quine.

For nearly three decades the P. & S. had struggled with this dilemma, trying to raise standards while wholly reliant on large enrollment to continue its existence. Lack of funding had created a succession of crises for the school, wracking it with internal conflict from its beginnings in 1881. For the first decade the school had survived only because several founders and early faculty, chief among them Quine and Steele, pledged their private fortunes against its growing indebtedness throughout that period.¹²⁶

In 1899, at the high point of P. & S.'s prosperity and two years into its first lease with the University, the faculty agreed to set aside one-third of the fees taken in to create a sinking fund for the University to hold, until it contained money enough for the University to purchase the College. To sustain this level of contribution when medical school enrollments began falling nationwide during the first decade of the new century, the relatively few P. & S. faculty who were salaried took cuts. In 1905, in his first request for legislative support for the medical school, President James had tried to explain this to skeptical legislators, who were afraid that they might be conned by crafty Chicago docs. James explained that, out of \$1,200,000 in fees taken in during the twenty-five-year life of the College, the corporation had plowed all of it back into buildings, equipment and salaries—except for a grand total of \$40,162 paid out in dividends.¹²⁷ *Pace* Flexner, this proprietary school was not "a veritable gold mine to its owners."¹²⁸

The legislature was not persuaded, however, and it failed to vote an appropriation for the school in 1905. Two years later, when Illinois lawmakers voted nearly \$350,000 to enable the University to purchase the buildings and grounds of P. & S., Governor Deneen vetoed the bill (along with a number of others), because total state expenditures would otherwise have exceeded state income.¹²⁹ (In 1907, deficit spending, like the concept of deficiency disease, was an idea whose time had not yet come.)



One of Illinois' great educators, Edmund James James (1855-1925) was President of Northwestern University from 1902 to 1904 and of the University of Illinois from 1904 to 1920. Although legislative appropriations for the state's only university at the time of the Flexner survey fell millions short of the institution's needs, James's faith in democracy led him to predict—correctly—that the American people would one day endow public education on a scale previously unimagined, surpassing even the huge benefactions of Carnegie and Rockefeller. (Photograph courtesy of the University Archives, Urbana.)

Thus the situation stood at the time of Flexner's 1909 inspections. As Quine described it later: "The University had a medical school which it could not support and did not control; and the income of the school itself was far too small to support the university's standards. The university stood discredited before the educators of the world."¹³⁰

No one had money to aid the University medical school. Yet, of the three Chicago schools Flexner found worth salvaging, it was P. & S. that had the greatest distance to go, and the most obstacles to overcome, in order to meet Flexner's demands.

There was, to begin with, the matter of admissions, in which—in addition to all the objections already mentioned—Flexner found that P. & S. occasionally accorded advanced standing to "students from decidedly inferior schools, some of them among the worst institutions in the country."¹³¹ Never mind that the school derived enormous vitality in that period by admitting such "lame ducks" as the women left stranded in the middle of their medical training by Northwestern's sudden discontinuance of its Women's Medical College in 1902; or those formerly preparing for foreign fields at the American Medical Missionary College, which closed in 1910, turning over to P. & S. its students and several scholarship programs to support study for medical mission work. There must be no more like these, or like William Webster Root and George Dohrmann, self-supporting products of Chicago night medical schools.

The basic sciences must improve as well. Although Flexner found the physiology laboratory at P. & S. "well equipped," pharmacy and chemistry were only "mediocre" and pathology and bacteriology merely "adequate."¹³²

Again, in the matter of clinical facilities, Flexner found P. & S. wanting. It relied on Cook County Hospital (where its faculty, many of that era's great surgeons among them, held eleven staff appointments at the moment) and on a number of other institutions where its students saw patients only under "the usual limitations" prevailing at hospitals not fully controlled by the medical school. In fact, Flexner attacked P. & S. for deceptive advertising on this score. Although he found generally "adequate" the West Side Free Dispensary, which the College founders had established at the beginning of the school in 1882, he selected the

school's University Hospital as an illustration "of the misleading character of catalogue representation."

The title itself is a misnomer; for the hospital is a university hospital not in the same sense that large teaching advantages exist for the benefit of the university, but only in the sense that to the existing opportunities, restricted as they are, students from other schools are not admitted at all. The catalogue states that 'it contains one hundred beds, and its clinical advantages are used exclusively for the students of this college.' Not, however, the 'clinical advantages' of the 'one hundred beds,' for 52 of them are private. Its 'clinical advantages' shrink on investigation to three weekly amphitheater clinics of slight pedagogic value and four ward clinics in obstetrics,—each of the latter attended by some 12 or 14 students—in a ward containing 13 beds. Supplementary connections give access to large surgical clinics.¹³³

This criticism struck at one of P. & S.'s proudest new acquisitions, a four-story, 100-bed structure built by surgeons on the faculty in 1907, at a cost of about \$120,000, for their patients to use, "partly with a view of giving the students additional clinical advantages."¹³⁴

Worse yet, Flexner included a second reference to this "deception" by P. & S. at that point in his text where he discussed the "amazing advertising methods of the commercially successful schools." To support his allegation that school catalogs of these institutions "abound in exaggeration, misstatement, and half-truths," Flexner listed five instances, one of them the P. & S. catalog entry about University Hospital. His text characterized "deans of these institutions" as "occasionally" knowing "more about modern advertising than about modern medical teaching. They may be uncertain about the relation of the clinical laboratory to bedside instruction; but they have calculated to a nicety which 'medium' brings the largest 'return.'"¹³⁵

By logical inference readers would assume that Flexner intended to include Illinois' Dean William Quine in this condemnation. But Quine, whom William Osler of The Johns Hopkins considered one

of the country's great teachers of internal medicine, was a man of unimpeachable integrity, beloved by students and respected by faculty and community alike.¹³⁶

Although the school had never been remunerative to its owners, President James had already had great difficulty persuading the legislature of this fact. By reinforcing the stereotype of grasping, greedy medical educators, Flexner made James' fundraising task infinitely harder. It was an especially bitter time for Quine, who said that the college had "tugged and strained valiantly to come up to the insistent demands of the president but it could not."¹³⁷ Egan quoted Quine's response to Flexner in the June 1910 *Bulletin*: "Unlimited wealth can reach an ideal beyond the reach of any medical college in the world, except those richly endowed or supported by the State."¹³⁸

During January of the "Flexner year" of 1910, critics of the University medical department bombarded James from every side. Faulting the old P. & S. on entrance requirements, on granting advanced standing for work done in low-grade schools, and on the fact that six of her faculty members taught also at one of Chicago's night schools, the CME decided to drop the school from its acceptable list. The Carnegie Foundation denied retirement allowances to the entire University because of flaws in the medical school—and Pritchett rubbed salt in President James' wounds by writing: "as the situation now stands it seems to me that the University is injuring medical education, not helping it." The AAMC notified James that the medical department did not fulfill minimum requirements and asked when it intended to enforce proper admissions standards.¹³⁹

When James in turn demanded that the school take "heroic action" to better itself, the Executive Faculty agreed to base admission on proof of a satisfactory high school education; to accept no credits earned at "colleges of inferior standing"; and to forbid its faculty from teaching at other institutions. As directors of the College corporation, the Executive Faculty referred the President's demand for better teachers and equipment for the first two years of instruction to the College's Committee of University Relations, headed by William Allen Pusey. Quine's unhappy reply to President James, however, written the day after the Executive Faculty meeting, did not hold out much hope of compliance.

It is my opinion that the College of Medicine ceased to be self-supporting last night and that it will never be self-supporting again. In my opinion the college cannot furnish better teachers and more of them and more equipment out of its earnings. It has already gone beyond its powers in satisfying the demands of the University.¹⁴⁰

Under a new agreement which Governor Deneen suggested after he had read the Flexner report, the University took absolute control of the medical school, with authorization to buy the plant upon appropriation by the legislature. In the fall of 1911, it appeared that President James would at last get the money he needed to make a proper medical college, one to match the standard of the Downstate university to which he had wooed so many bright young Harvard faculty that President Eliot traveled to Urbana to see for himself this rising young institution.¹⁴¹

While the legislature considered James' request for \$200,000 to maintain the medical school, Christian Scientists mounted what Quine called "defamatory and virulent opposition." "For the first time in the history of medical education," he said, "the powers of a great religious organization were used to stem the growth of medical science in a free state."¹⁴² Despite this opposition to a "state sect of medicine," the legislature—by a vote of thirty to two in the Senate, unanimously in the House—appropriated \$120,000 for the biennium.

Governor Deneen signed the bill in June 1911, and President James began recruiting first-rate basic medical scientists to teach anatomy and pathology. He had barely begun his search, however, when the Illinois State Homeopathic Society, in collaboration with the medical schools of Loyola and Valparaiso universities, brought injunction proceedings to prevent any part of the appropriation from being used for the College of Medicine, on grounds that legislative disregard for a procedural technicality during the bill's passage rendered it unconstitutional.¹⁴³

In February 1912, at the close of prolonged litigation, the Illinois State Supreme Court upheld the injunction, depriving the University once again of the means necessary to sustain a medical school (and simultaneously blocking funding for the University's entire agronomy research program). Without the legislative

appropriation he had worked for since 1904, President James had no way to maintain the P. & S. lease. He was not even able to follow through on the appointment, already approved by the Board of Trustees, of Elias Potter Lyon as head of physiology and dean of the two pre-clinical years. Thus Lyon, who had been willing to come to Illinois from his position as Dean of the St. Louis University School of Medicine, instead became Dean of the Minnesota Medical School, where he left a record of outstanding academic leadership.¹⁴⁴

The corporation of P. & S., recognizing that further affiliation was impossible without funding, reluctantly decided to sever its University connection. On April 2, 1912, the College Secretary, William Allen Pusey, publicly announced that the fifteen-year-long association was about to end. At the close of the term, the University officially closed its medical school in Chicago. P. & S. immediately re-opened in the same facilities, as a private, proprietary, free-standing medical school, admitting all those who had formerly been enrolled in the "University of Illinois College of Medicine."¹⁴⁵

While President James began what was to prove a futile search for alternative facilities in which to operate a Chicago school of medicine of the University of Illinois, the P. & S. faculty split into two groups, one favoring the attempt to pursue an independent existence, the other demanding that some way be found to continue as a college of the University. As for those holding diplomas from the defunct institution, a graduate of 1902 later recalled their response: "Consternation Among the Alumni: Dead Diplomas on Their Walls."¹⁴⁶

In June 1912, when the alumni gathered for what appeared to be the last, historic commencement of the P. & S./University of Illinois College of Medicine, a large representation from the Class of 1902 caucused in advance of the general meeting, to plan how best to influence the entire alumni body in favor of university affiliation. These strategists carried the general meeting that followed. Having secured approval of a "diplomatically" crafted resolution urging that P. & S. and the University postpone final action, they stirred support by their rousing response to the roll call. Sixty 1902 graduates rose as one, rocked the rafters with the old P. & S. yell, and then sang Auld Lang Syne for all 3500 physicians who had graduated from the college since 1883. This singular display of loyalty served as the kick-off for an alumni

campaign a University historian has described as "something never before seen in Illini annals"—an effort unique, so far as we know, in the history of American medical education.¹⁴⁷

It was necessary first to persuade President James and the University trustees that the alumni and faculty would be willing—and perhaps able—to gather all shares of stock, in order to make P. & S. a gift to the University. This done, loyal graduates and faithful faculty set about buying up those shares not already in faculty hands. Representatives from Loyola and Valparaiso, long-time rivals of P. & S., raced to corner enough shares to block the transfer—but they failed. Through the extraordinary generosity of faculty, alumni, students and friends, all of the stock was secured for transfer in advance of the deadline set by the Trustees.¹⁴⁸

The University re-opened its medical school on March 6, 1913, in a ceremony rendered memorable by President James' Lincolnian address:

With malice toward none, with charity toward all, holding out a sympathetic and co-operating hand toward all other worthy institutions, public and private—asking and accepting the aid and support of all schools and sects in medicine let us, in binding up the wounds of a broken and diseased society, move forward to do our part. . . .¹⁴⁹

Under James' direct oversight, the College began at once to require college education for admission—one year in 1913, two in 1914. The faculty designed a total curriculum of slightly over 4000 hours, using as models the Carnegie Foundation's twelve leading medical schools: Hopkins, Columbia, Cornell, Minnesota, Harvard, Stanford, Pennsylvania, Western Reserve, Michigan, Rush, Northwestern and Wisconsin.¹⁵⁰ Despite precipitous decline in enrollment at first—from 159 entering in 1912 to 73 in 1913 and only 13 the next year—the College slowly recovered. By 1919 it was again obliged to reject applicants. It has remained ever since one of the nation's largest medical schools and, until the creation of the Southern Illinois University School of Medicine in 1969, the only state medical school in Illinois.

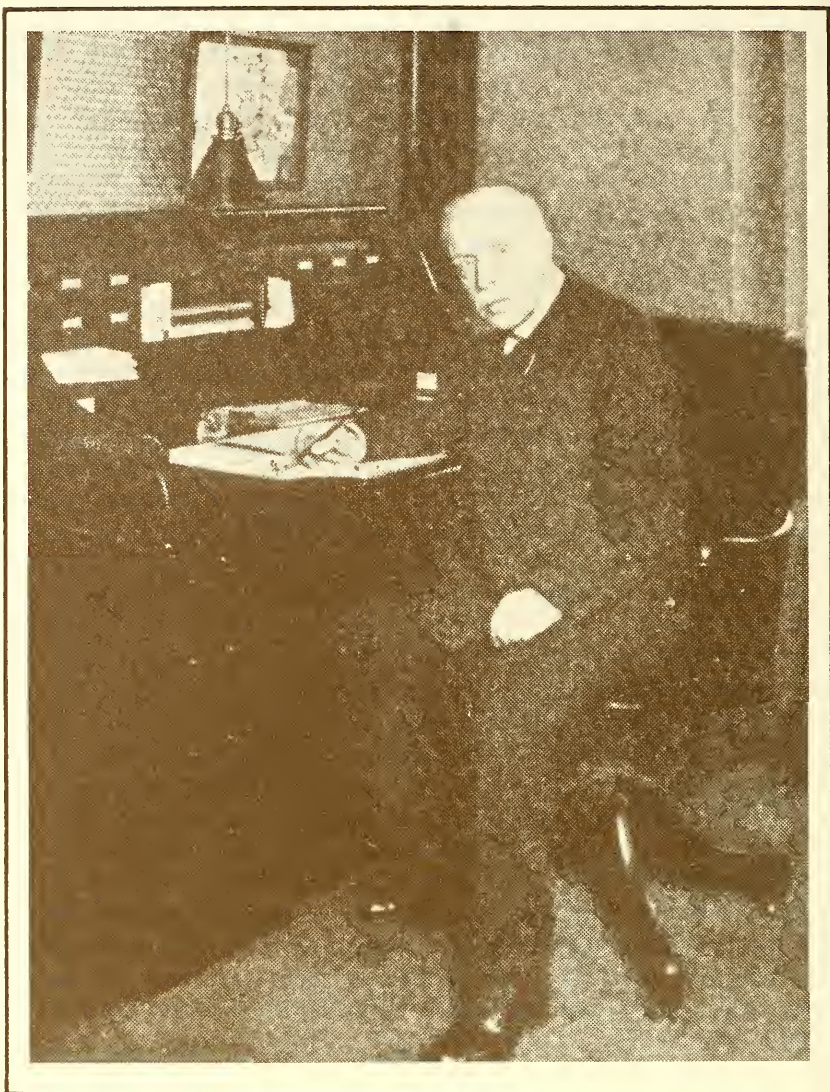
In the belief that neither Rush, Northwestern, or P. & S. could afford an adequate hospital for clinical undergraduate teaching,

Flexner had urged that the three pool their resources to create a single, superior clinical facility to serve their combined teaching needs. This plan would leave Cook County Hospital to furnish illustrative materials for advanced students, supplementing the clinical teaching done in the tripartite academic hospital. Flexner also suggested that County develop graduate teaching in the specialties, in order to provide the kind of opportunity Americans then still largely sought in Europe, just "for lack of differentiation and organization" of America's clinical riches.¹⁵¹

Flexner realized that this process, which he called "the modernization of medical education in Chicago," would require "honesty and intelligence on the part of the state authorities, and cooperation between the three great universities of the state" to override "waste and demoralization due to institutional competition." The entire situation, he concluded, "presents a rare opportunity for educational statemanship."¹⁵²

After securing a legislative appropriation for the College with the vigorous help of faculty and alumni-turned-lobbyists, President James devoted enormous energy to the merger effort Flexner advocated. He did not succeed, either with Rush or with Northwestern.¹⁵³ Eventually, the state medical school faced a second accrediting crisis—this one for the lack of a hospital. In 1919 James entered into a most un-Flexnerian agreement of cooperation whereby the State Department of Public Welfare would erect and maintain buildings in which the faculty and staff of the College would care for those who were charges of the state by reason of ill health. The first of these "Research and Educational Hospitals" opened in 1925. The last of them finally came under University control in 1961, eighty years after the College's founding, nearly half a century after it became the University medical school.¹⁵⁴

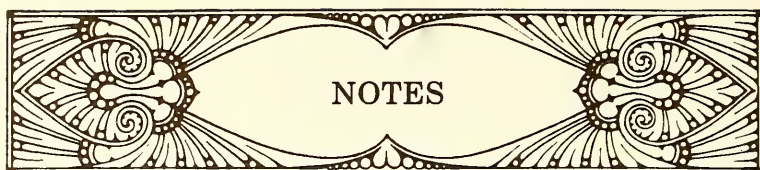




A rare photograph of William Edward Quine (1847-1922), taken near the end of his long tenure (1897-1913) as Dean of the College of Physicians and Surgeons of Chicago/University of Illinois College of Medicine. A faculty member from the school's second year of operation (and often considered a "founder"), Quine was a beloved figure to the students. At all times, but especially during the difficult early decades of P. & S., Quine gave freely to its support, several times pledging his entire savings to secure the school from bankruptcy. (Photograph reproduced, courtesy of the University Archives, Urbana, from the 1915 Illio (yearbook), volume 21, page 75.)



Assorted skeletons in the P. & S. Museum at the renovated West Division High School suggest the vast ground faculty had to cover in order to prepare their students for clinical work. Even with workloads of 1188 hours in the first year and 1198 in the second, it was almost impossible to compress six years of work into four, as faculty had to do for students entering without prior study in the biological sciences. (Photograph taken from the Bulletin of College of Medicine of the University of Illinois, January, 1902, courtesy of the Archives, Library of the Health Sciences, University of Illinois at Chicago.)



1. Abraham Flexner, *Medical Education in the United States and Canada, A Report to the Carnegie Foundation for the Advancement of Teaching*. Bulletin Number Four (Carnegie Foundation for the Advancement of Teaching, 1910), p. 6. Flexner's section of "General Considerations" of Illinois begins (p. 216) with the well-known quote that opens this study.

2. There is a listing of Illinois medical schools existing between 1844 and 1896 in David J. Davis, "Medical Education in Illinois," in David J. Davis (ed.), *History of Medical Practice in Illinois*, Volume II 1850-1900 (Chicago: Illinois State Medical Society, 1955), pp. 415-516, note 5.

3. Daniel M. Fox, "Abraham Flexner's Unpublished Report: Foundations and Medical Education, 1909-1928," *Bulletin of the History of Medicine* 54 (Winter 1980):475-496, makes persuasive use of Flexner's letters and memoranda to support the suggestion that Flexner was what Hannah Arendt has labelled an "exceptional Jew": that is, that Flexner's style, like that of many of the Western European Jewish intellectuals he came to know in his travels, was the product of adaptation to the "unreasonable demands of society, to be strange and exciting, to develop a certain immediacy of self-expression and presentation which were originally the attributes of the actor and the virtuoso, people whom society has always half denied and half admired."

4. Of many recent Flexner studies—some of them controversial in their own right—those I have found most useful in writing this study are: Robert P. Hudson, "Abraham Flexner in Perspective: American Medical Education 1865-1910," *Bulletin of the History of Medicine* 46 (November-December 1972):545-571; Howard S. Berliner, "New Light on the Flexner Report: Notes on the AMA-Carnegie Foundation Background," *Bulletin of the History of Medicine* 51 (Winter 1977):603-609; Gerald E. Markowitz and David Rosner, "Doctors in Crisis: Medical Education and Medical Reform During the Progressive Era, 1895-1915," *American Quarterly* 25 (March 1973):83-107; Michael Schudson, "The Flexner Report and the Reed Report: Notes on the History of Professional Education in the United States," *Social Science*

Quarterly 54 (1974):347-361; and Michael J. Lepore, *Death of the Clinician: Requiem or Reveille* (Springfield, Illinois: Charles C. Thomas, 1982). This article was written before the publication of Howard Berliner, *A System of Scientific Medicine: Philanthropic Foundations in the Flexner Era* (New York and London: Tavistock Publications, 1985). His chapter on "Medicine in Chicago" (pp. 35-52) contains new evidence of anti-Chicago feeling on the part of Flexner and his foundation colleagues.

5. Thomas N. Bonner, *Medicine in Chicago 1850-1950: A Chapter in the Social and Scientific Development of a City* (Madison, Wisconsin: The American History Research Center, 1957), pp. 182-184. Like all students of the history of medicine in Illinois, I am indebted beyond adequate acknowledgment to Bonner.

6. The decision to locate the publication of JAMA—and, later, Association headquarters—in Chicago is the subject of a study-in-progress by this author. There is some information in Morris Fishbein, *A History of the American Medical Association, 1847 to 1947* (Philadelphia and London: W.B. Saunders Company, 1947), pp. 144-149.

7. Flexner, *Medical Education* (note 1 above), Appendix.

8. Berliner, "New Light on the Flexner Report" (note 4 above), pp. 605-606.

9. *Ibid.* See also Lepore, *Death of the Clinician* (note 4 above), pp. 28-29.

10. Quoted in "The Report of the Carnegie Foundation" by J.A.E. (James A. Egan, Secretary) in Illinois State Board of Health, *Bulletin* 6 (June 1910):72.

11. *Ibid.*

12. "Is It the Man or His Alma Mater?" reprinted from *American Medicine* (no date) in Illinois State Board of Health, *Bulletin* 6 (December 1910):577-578.

13. Flexner, *Medical Education* (note 1 above), p. 145.

14. William B. Philip, "Chicago and the Downstate: A Study of Their Conflicts, 1870-1934," unpublished doctoral thesis, University of Chicago, 1940, pp. 50-74. Sectionalism at the time of Flexner's inspections underlay the "Milk Wars" Chicago had to fight to ensure a pure milk supply. According to Perry Duis (in *Chicago Magazine*, July 1985, pp. 82-84), Downstate interests responded to a City Council measure of 1908, requiring that all milk entering the city either come from cattle tested for tuberculosis or else be pasteurized, by influencing the legislature in 1911 to pass a law forbidding any county or city from establishing a tuberculosis test for cattle.

15. Fox, "Abraham Flexner's Unpublished Report" (note 3 above), pp. 479-480 and p. 488; Berliner, "New Light on the Flexner Report" (note 4 above), p. 608.

16. Bevan's remarks were not published at the time. In "Cooperation in Medical Education and Medical Service," *JAMA* 90 (April 14, 1928):1173-77, he recalled that he had referred to "five especially rotten spots" when presenting tables of data "twenty-two years ago." Many historians date his original remarks to 1905, the year of the first conference held by the AMA Council on Medical Education. Others give the year as 1906, when the second CME conference met. According to Bevan's contemporary, James A. Egan, writing in the Illinois State Board of Health *Bulletin* 5 (1909):586 and 6 (1910):37, the remarks occurred at the second CME conference, in 1906. In any case, the basis for them was data from state boards and a CME survey in 1904.

17. Illinois State Board of Health, *Bulletin* 6 (January-May 1910):38.

18. Illinois State Board of Health, *Bulletin* 6 (1910):37.

19. Illinois State Board of Health, *Bulletin* 5 (1909):580 and 582.

20. Bonner, *Medicine in Chicago* (note 5 above), p. 191; Issac Rawlings, *The Rise and Fall of Disease in Illinois* (two volumes, Springfield: Illinois Department of Public Health, 1927), Volume II, pp. 159-174. The following account of Egan's administration is based on data in Rawlings and on resolutions adopted at a special meeting of the Illinois State Board of Health after Egan's death and printed in the *Illinois Medical Journal* 24 (July 1913):66-69.

21. This concern, together with Egan's responses to it, pervades the *Illinois Medical Journal* and the *Bulletin* of the Illinois State Board of Health throughout this period.

22. *Illinois Medical Journal* 17 (February 11, 1910):486.

23. Illinois State Board of Health, *Bulletin* 5 (August 1909):279-334. Egan also ran pellagra issues in October and November, as well as a later review, "The Etiology of Pellagra," in the *Bulletin* of June 1910, 6:85-89.

24. There is a review of the case in "The National Medical University and Its Charges," Illinois State Board of Health *Bulletin* 6 (August 1910):203-208. Flexner, *Medical Education* (note 1 above), refers to the case at p. 170.

25. Flexner, *Medical Education* (note 1 above), pp. 212-213.

26. See, for example, Illinois State Board of Health *Bulletin* 6 (December 1910):576.

27. "Illinois and 'Rotten' Medical Education," *Illinois Medical Journal* 16 (December 1909):723.

28. *Ibid.*

29. "Illinois 'A Plague Spot in Medical Education, Medical Examination and Medical Licensure'?" *Illinois State Board of Health Bulletin* 5 (December 1909):578-587. George W. Webster, President of the Board, signed this reply along with Egan.

30. *Ibid.*, 578-579.

31. Flexner, *Medical Education* (note 1 above), p. 216.

32. *Illinois Medical Journal* 17 (March 1910):387.

33. *Ibid.*, 388.

34. *Ibid.*, 401.

35. *Illinois Medical Journal* 17 (April 1910):483.

36. *Illinois Medical Journal* 17 (March 1910):332-335.

37. *Illinois Medical Journal* 17 (April 1910):477-480.

38. *Ibid.*, 490-491.

39. *Illinois Medical Journal* 17 (March 1910):334-335 and 479.

40. *Illinois Medical Journal* 17 (April 1910):483-490.

41. *Ibid.*, 477-480 and 491-496.

42. Illinois State Board of Health, *Bulletin* 6 (January-May 1910):44.

43. *Ibid.*, (June 1910):64.

44. *Illinois Medical Journal* 17 (June 1910):750-752.

45. *Ibid.*, 752.

46. *Ibid.*, 752-753.

47. *Ibid.*, 754. Professional matters were not yet back to normal. This meeting ended in a "Rump Session" unprecedented in the history of the state society. (The regular speaker had fled the room after "several parties made warlike demonstrations against him" for calling adjournment right after G. Frank Lydston introduced a resolution charging undemocratic procedures in state and national medical society representation.)

48. *Illinois Medical Journal* 24 (July 1913):45.

49. Flexner, *Medical Education* (note 1 above), p. 32.

50. Bevan, "Cooperation in Medical Education" (note 16 above), pp. 1175-1176, recounts the story of how the CME sought Carnegie Foundation sponsorship for the submission of "the evidence we [the CME] had accumulated." This evidence formed the body of what is now popularly known as the Flexner Report. Bevan's 1928 article appears to be the initial revelation of long-concealed (and subsequently overlooked) collusion between Flexner and the AMA.

51. Flexner, *Medical Education* (note 1 above), p. 33, including note 1.

52. *Ibid.*, 212.

53. "The Report of the Carnegie Foundation" (signed J.A.E.), Illinois State Board of Health *Bulletin 6* (June 1910):63-78.

54. Fox, "Abraham Flexner's Unpublished Report" (note 3 above), p. 481.

55. *Illinois Medical Journal* 24 (July 1913):46.

56. *Ibid.* This letter of May 16, 1913, from Webster to the Committee on Medical Education of the Illinois State Medical Society, appears as part of the Committee's annual report, dated May 20, 1913.

57. "The Report of the Carnegie Foundation" (note 53 above), pp. 75-78. Because of Flexner's refusal to understand that the Illinois Board would risk further mandamus and personal damage actions if it required preliminary education beyond that provided for by law, Egan observed (p. 77) that Flexner "evidently knows as little of law as he does of medicine."

58. Flexner, *Medical Education* (note 1 above), p. 35, note 1.

59. "The Report of the Carnegie Foundation" (note 53 above), p. 66.

60. *Ibid.*, 63.

61. "Is Toxicology Taught in Medical Colleges?" Illinois State Board of Health, *Bulletin 6* (June 1910):80.

62. "Do Medical Colleges Teach Practical Medicine?" Illinois State Board of Health, *Bulletin 6* (October 1910):345.

63. *Ibid.*, 345-346.

64. *Ibid.*, 347.

65. "The Report of the Carnegie Foundation" (note 53 above) pp. 65 and 74.

66. *Ibid.*, 72 and 74.

67. For example, Flexner, *Medical Education* (note 1 above), pp. 110-111, explains that the nearly 4,000 practicing local doctors who constituted clinical faculty in the United States in 1910 were "not teachers," having "neither time for, nor effective interest in, productive teaching." He meant no disrespect for their abilities as physicians: "they are doubtless as good doctors as can be found anywhere." But, unlike the imported laboratory teachers whose "productivity has been increased by crossing the breed," the local, clinical faculty were, he thought, generally "contentedly non-productive."

68. *Ibid.*, 176 and 215. The faculty of this post-graduate school, founded in 1886, included Christian Fenger, Nicholas Senn, Ferdinand Henrotin, Henry B. Favill, E. Fletcher Ingals, Archibald Church and William Belfield.

69. Fox, "Abraham Flexner's Unpublished Report" (note 3 above), pp. 487 and 490. From Flexner's letters, Fox has drawn passages showing that, as late as 1919, Flexner was still trying to reduce the number of United States medical schools to thirty-one.

70. Michael R. Harris, "Abraham Flexner," *Dictionary of American Biography*, Supplement Six (New York, 1980), pp. 207-209.

71. *Ibid.*

72. Fox, "Abraham Flexner's Unpublished Report" (note 3 above), p. 495.

73. Abraham Flexner, *Abraham Flexner: An Autobiography* (New York, 1960), p. 71.

74. *Ibid.*, 165.

75. *Chicago Medical Journal and Examiner* 41 (November 1880): 504.

76. Flexner, *Medical Education* (note 1 above), pp. 42-43.

77. "The Report of the Carnegie Foundation" (note 53 above), p. 73.

78. *Ibid.*, 78.

79. Flexner, *Autobiography* (note 73 above), p. 165; Fox, "Abraham Flexner's Unpublished Report" (note 3 above), p. 493.

80. Flexner, *Medical Education* (note 1 above), p. 84. He referred with special disdain to the "flourishing industry" of drill-masters or quiz-masters in these two cities.

81. Flexner, *Medical Education* (note 1 above), p. 176.

82. Flexner, *Autobiography* (note 73 above), p. 165.

83. Patricia Spain Ward, "An Experiment in Medical Education: Or, How the College of Physicians and Surgeons of Chicago Became the University of Illinois College of Medicine," in Edward P. Cohen (ed.), *Medicine in Transition: The Centennial of the University of Illinois College of Medicine* (Urbana: University of Illinois Press, 1981), pp. 35-44.

84. Flexner, *Medical Education* (note 1 above), pp. 80-82. He likened the proprietary school that had a few strong basic science departments, like the P. & S., to a "successful factory," which he considered "scientifically inert." Flexner further condemned the "manifest incongruity" of mixing dentistry and pharmacy students in the same classes with medical students, as happened at P. & S. and elsewhere.

85. Flexner, *Autobiography* (note 73 above), pp. 167-168.
86. *Ibid.* Flexner claimed that the University of Chicago medical school was "neither 'fish nor flesh nor good red herring.'" Flexner, *Medical Education* (note 1 above), pp. 207-208.
87. Flexner, *Medical Education* (note 1 above), p. 77.
88. *Illinois Medical Journal* 16 (November 1909):627.
89. *Ibid.*
90. Flexner, *Medical Education* (note 1 above), pp. 40-41 and 48.
91. *Illinois Fact Book and Historical Almanac, 1673-1968* (Springfield, 1970), p. 165.
92. Wynton U. Solberg, *The University of Illinois, 1867-1894* (Urbana and Chicago, 1968), pp. 369-370. Richard J. Storr, *Harper's University: Beginnings of the University of Chicago* (Chicago, 1966), p. 196, characterizes University extension as the "secular counterpart of evangelism," a suggestive interpretation in light of James' background as the son of a Methodist circuit rider.
93. *Illinois Medical Journal* 7 (February 1905):189. Schudson, "The Flexner Report and the Reed Report" (note 4 above), p. 349, states that the percentage of law students attending night schools rose from 9 in 1889-90 to 25 by 1915-16.
94. Ward, "An Experiment in Medical Education" (note 83 above), pp. 35-45.
95. *Illinois Medical Journal* 7 (February 1905):190 and 192.
96. *Ibid.*, 186-195.
97. *Ibid.*, 193-194. The Dean of Harvey Medical College was Frances Dickinson, a successful ophthalmologist who had trained in England and Germany after her graduation in 1883 from the Woman's Medical College of Chicago (later, Northwestern University Woman's Medical School).
98. *Ibid.*, 188.
99. *Ibid.*, 189.
100. *Ibid.*, 192.
101. Frank Billings, "Medical Education in the United States," *JAMA* 40 (May 9, 1903):1271-1272.
102. *Illinois Medical Journal* 7 (February 1905):188.
103. *Ibid.*, 191.
104. *Ibid.*, 190.
105. Editorial, "The Medical Education Situation in Chicago," *Illinois Medical Journal* 21 (May 1912):611.
106. Evidence of these differing opinions fills the pages of the *Illinois Medical Journal* and the *Bulletin* of the Illinois State Board of Health. Flexner, *Medical Education* (note 1 above), pp. 207-220.

107. Flexner, *Medical Education* (note 1 above), p. 216, footnote; Schudson "The Flexner Report and the Reed Report" (note 4 above), pp. 351-356.

108. Editorial, "Adams County Medical Society Heard From?" Illinois State Board of Health *Bulletin* 6 (January-May 1910):38. At this period in early 1910, Egan suggested that the Board consider the inadvisability of recognizing hospital and clinical instruction given exclusively during evening hours (*Bulletin* 6:25). He persisted until late 1910 in his support for evening instruction in the pre-clinical subjects.

109. Root's role in founding Alpha Omega Alpha has long since been a part of the record. His medical education is the subject of a study-in-progress by the author, drawn from admissions and graduation records at Northwestern University Medical School, the University of Illinois College of Medicine, and the University of Chicago.

110. George Dohrmann III, "Medical Education in the United States as Seen by a German Immigrant: The Letters of George Dohrmann, 1897 to 1901," *Journal of the History of Medicine and Allied Sciences* 33 (October 1978):477-506.

111. Flexner, *Medical Education* (note 1 above), pp. 38-39.

112. James A. Egan to Editor, *Chicago Record-Herald*, December 6, 1910, reprinted in Illinois State Board of Health, *Bulletin* 6 (December 1910):576.

113. "The Relation of the University of Illinois to Medical Education" by President Edmund J. James of the University of Illinois, together with the discussion that followed this address (and others not published), appeared in the *Illinois Medical Journal* 19 (January 1911):82-101. The history of the Physician's Club appears in *History of Medicine and Surgery and Physicians and Surgeons of Chicago* (Chicago, 1922), p. 362.

114. *Illinois Medical Journal* 19 (January 1911):93-95.

115. *Ibid.*, 98.

116. *Ibid.*, 95-97.

117. *Ibid.*, 97-98 and 99.

118. Executive Faculty Minutes, located in the Archives, Library of the Health Sciences, University of Illinois at Chicago.

119. James, "The Relation of the University of Illinois to Medical Education" (note 113 above), pp. 83-85.

120. *Ibid.*, 85-88.

121. *Ibid.*, 88.

122. James to Victor Lawson, owner of *Chicago Daily News*, March 5, 1913, quoted in Richard Allen Swanson, "Edmund J. James, 1855-1925: A 'Conservative Progressive' in American Higher Education," unpublished doctoral dissertation, University of Illinois, 1966, pp. 210-211. I am indebted to University Archivist Maynard Brichford for calling this study to my attention.

123. Flexner correspondence in 1921, quoted in Fox, "Abraham Flexner's Unpublished Report" (note 3 above), pp. 493-494.

124. Of many early contemporary histories written by founders and early faculty, one of the most accessible is William E. Quine, "History of the College of Physicians and Surgeons of Chicago," *Bulletin of the Society of Medical History of Chicago* 1 (October 1911):64-70.

125. Flexner, *Medical Education* (note 1 above), p. 143. Flexner lists (p. 140) only four state universities with "fictitious alignments" with medical schools which they failed to support financially: Arkansas, California, Illinois, and Oregon.

126. Quine, "History of the College of Physicians and Surgeons" (note 124 above), p. 65.

127. E.J. James, "Memorandum Concerning the College of Medicine of the University of Illinois," April 1913, Archives, Library of the Health Sciences, University of Illinois at Chicago.

128. Flexner, *Medical Education* (note 1 above), p. 81; the Executive Faculty at P. & S. often discussed self-assessments to make up their deficits.

129. James, "Memorandum" (note 127 above).

130. Quine, "History of the College of Physicians and Surgeons" (note 124 above), p. 68.

131. Flexner, *Medical Education* (note 1 above), pp. 38-39.

132. *Ibid.*, 81 (note 6) and 209.

133. *Ibid.*, 209.

134. *History of Medicine and Surgery* (note 113 above), p. 221.

135. Flexner, *Medical Education* (note 1 above), p. 19.

136. Quine biographical file, Archives, University of Illinois at Chicago, Health Sciences Center.

137. Quine, "History of the College of Physicians and Surgeons" (note 124 above), p. 69.

138. Quoted by James A. Egan in "The Report of the Carnegie Foundation" (note 53 above), p. 77.

139. Allan Nevins, *Illinois* (New York, 1917), pp. 237-238.

140. *Ibid.* Quine had tendered his resignation as Dean in 1899, in disgust with University demands unaccompanied by fiscal aid, but President Draper and the Trustees had dissuaded him. At a

faculty meeting on April 10, 1906, in response to President James' criticisms of the College's practice of admitting students from night schools and others "illegally prepared," Quine deplored the previous course of the University "in not establishing a closer intimacy and association" (Faculty Minutes Book 1902-12, pp. 93-96, in Archives, Library of the Health Sciences, University of Illinois at Chicago).

141. *Illini Years 1868-1950: A Picture History of the University of Illinois* (University of Illinois Press, 1950), p. 60.

142. Quine, "History of the College of Physicians and Surgeons" (note 124 above), p. 69.

143. *Ibid.* See also Carl Stephens, typescript history (which served as the basis for the work cited in note 141 above), University of Illinois Archives, Urbana.

144. *Board of Trustees Reports 26* (August 1, 1911):468.

145. The faculty even had letterhead printed which read "College of Physicians and Surgeons, formerly College of Medicine of the University of Illinois." The secretary, Frank B. Earle, used this for correspondence as late as November 1913 (see sample in Quine biographical file, Archives, Library of the Health Sciences, University of Illinois at Chicago).

146. The fullest account of this period of the school's history is a 131-page, single-spaced typescript entitled "Lobbying Days 1913" by Archie Graham, a 1902 graduate. This wry, lively document (in the University Archives, Urbana) uses bold-face for such phrases as the one cited (p. 32) and for the charge (p. 47) that "Illinois, medically speaking, IS A DISGRACE TO THE CIVILIZED WORLD." As a greenhorn but indefatigable lobbyist for the College of Medicine—first in Urbana, then in Springfield—Graham learned to judge when any further "Flexnerizing" was likely to lose, rather than gain, votes for the College of Medicine appropriation.

147. *Illini Years* (note 141 above), p. 60.

148. This story appears in all of the several histories of the early years of the school. Perhaps the most colorful phraseology for these final events came from Charles Davison, an early faculty member (in surgery), a founder of University Hospital, and at one time a Trustee of the University. At a dinner honoring William Allan Pusey in 1933, Davison recalled that the alumni, in "utter disgust" with the prolonged "flirtation" between the University and P. & S. ("always to court and never to wed"), "delivered the corporation in its entirety, bag and baggage, body, soul and breeches." (Typescript of Davison's address is in the Archives,

Library of the Health Sciences, University of Illinois at Chicago.)

149. *Addresses Delivered Upon the Re-Opening of the Medical Department of the University of Illinois, March 6, 1913*, p. 17, Archives, Library of The Health Sciences, University of Illinois at Chicago. Archie Graham, "Lobbying Days" (note 146 above), p. 48, calls this James speech the "Medical Magna Charta."

150. *Board of Trustees Reports* 28 (September 11, 1914):119-121.

151. Flexner, *Medical Education* (note 1 above), pp. 218-219.

152. *Ibid.*, 219-220.

153. Cooperation of the kind Flexner (and President James) envisioned was rendered nearly impossible by the Illinois Attorney General, Patrick J. Lucey, who ruled in April 1915 that the 1873 Act which changed the Board of Trustees of the University from appointive to elective officials made the University a "public corporation." Decisions about educational standards were reserved to the Trustees, who could not contract with private corporations like Northwestern, the University of Chicago, and Loyola, because to do so would be to delegate away their powers: "The General Assembly is the source of the existence of said University, and is the source of all its powers." *Board of Trustees Reports* 28 (April 27, 1915):236-240.

154. Karl Max Grisso, *David Kinley, 1861-1944: The Career of the Fifth President of the University of Illinois*, unpublished doctoral dissertation, University of Illinois, 1980, pp. 432-446, is a superb, scholarly account of this thorny collaboration which governed the development of the College of Medicine for nearly half a century.



AUTHOR

Patricia Spain Ward is Historian in the Office of the Vice Chancellor for Health Affairs and a member of the Humanistic Studies Program at the University of Illinois at Chicago. She has contributed medical articles to the *Dictionary of American Biography*, to *Notable American Women 1607-1950*, and to the *Biographical Dictionary of Social Welfare in America*. Her work on Flexner in Illinois, like her article entitled "Who Will Bell the Cat? Andrew C. Ivy and Krebiozen," is a product of her ongoing research in the history of the University of Illinois College of Medicine.



FROM THE EDITOR

Ominous warnings about the profit margins of health care, conflicting data about health manpower, particularly those involving the medical specialties, and concerns about the future direction of medicine are rampant in both popular and specialty literature. Too often missing from consideration are the health care needs of the citizen. Yet, in this Republic, it is the citizen's needs that are the starting point by which issues of health care delivery are resolved.

Tension between the prerogatives of the professions and the needs of the citizenry are inextricably bound to the question of political sovereignty. The question, "on what grounds does the healer have authority," has been answered variously throughout history. Among the most traditional societies, healers' authority often comes from, and in some places still refers to, divine investment, sometimes delegated through monarch or religious authority. But with the founding of this Republic, like all political sovereignty, authority comes from "the people."

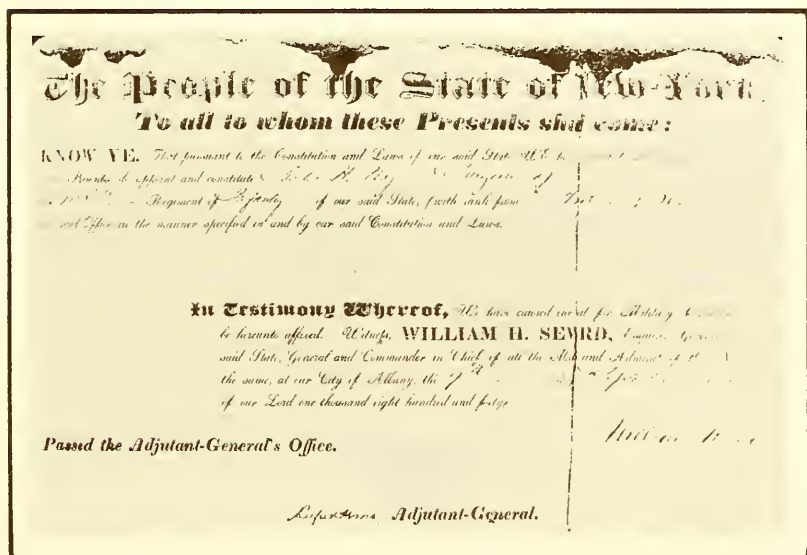
Many are the scholarly works, not the least of which is the study by Richard H. Shryock, entitled *Medical Licensing in America, 1650-1965*, which documents well the issues first raised in *The Federalist Papers* and then in the respective state legislatures over how to implement the people's sovereignty. The legislature of the State of New York answered the question by requiring licensure of physicians as early as 1760. In fact, the early licenses issued were stamped with the words "the People of the State of New York" In that document is a story sorely needing to be retold in today's popular and specialty literature. Even when most state licensure laws were struck down in the days following Andrew Jackson's election to the presidency in 1829, the question was not who had the sovereignty to define the healer's authority but by what means. For Jacksonians, the means was *laissez-faire*.

As the people had to struggle with new problems of population growth and concentration in urban areas, the alternative of allowing the marketplace to define the healer's authority was seen to be severely deficient. In 1877 the State of Illinois ("State" as the symbol for "the people") became the first to enact a Medical Practice Act to be enforced through the State Board of Health. According to the Act, all physicians who had practiced in the state for more than ten years had to register with the Board. All other practitioners also were required to present a diploma from a medical college or undergo a Board examination. For the next fifteen years, the task of the Board of Health was not only to identify the health needs of the citizenry and implement solutions through political reform, but also to regulate the authority by which physicians were to be considered part of health care delivery. Despite political pulls and shoves, the Board was able to define minimum admission criteria to medical schools, assess the acceptability of curricula, and limit access to practice through licensure—all in the face of continuous charges of discrimination against practitioner's rights.

The Illinois State Board of Health was very successful in implementing its mandate and became a model for many other states. By the first decade of the new century, "regular" or "examined" physicians were sufficiently numerous and politically powerful to be charging the Board with not being rigorous enough. "Cesspool of the nation" became the charge by which to promote more restrictive regulation of the physician's authority, and by extension, to any others who would be healers. But who was to define what was rigorous enough? And on whose behalf? Should the decision be regulated to "the people" through the State Board of Health? Or should the decision reside in the emerging medical societies, especially the American Medical Association? Still others clamored for decisions from the numerous medical schools, most of which were for-profit, shareholder owned. Pat Spain Ward tells the story behind the issues. She provides for our readership the kind of scholarly investigation needed if present-day issues of health care are to be addressed with more than raw economic forces. She lets us see, through the microcosm of Illinois, many of the macroissues of public versus curative health care delivery, physician supply determined by specialty boards versus medical school admissions, for-profit versus not-for-profit economic models, "regular" medicine versus "alternative" health care providers. Her essay challenges, too, the curators, archivists, and special collection

librarians of the health sciences to use artifacts more perceptively for the purpose of historical relevance and accuracy. Neither “the people” nor the special interest groups can continue to ignore the historical context out of which today’s issues emerge.

It is fitting to begin the second volume of *Caduceus* with Ms. Ward’s essay. Among other things, its publication allows me to salute one of the nation’s premier medical institutions as University of Illinois faculty and staff embark on a second century, and to hail the wisdom of a vice chancellor who utilizes such a fine scholar as Ms. Ward in a full-time capacity to keep the historical context integral to the institution’s missions. Furthermore, Ms. Ward’s essay demonstrates that we have accomplished what was set forth a year ago as a hope, that the pages of *Caduceus* should serve as a vehicle for scholars of the health sciences to interpret, through the repositories of artifacts and ideas, the changes in our personal and social contexts.



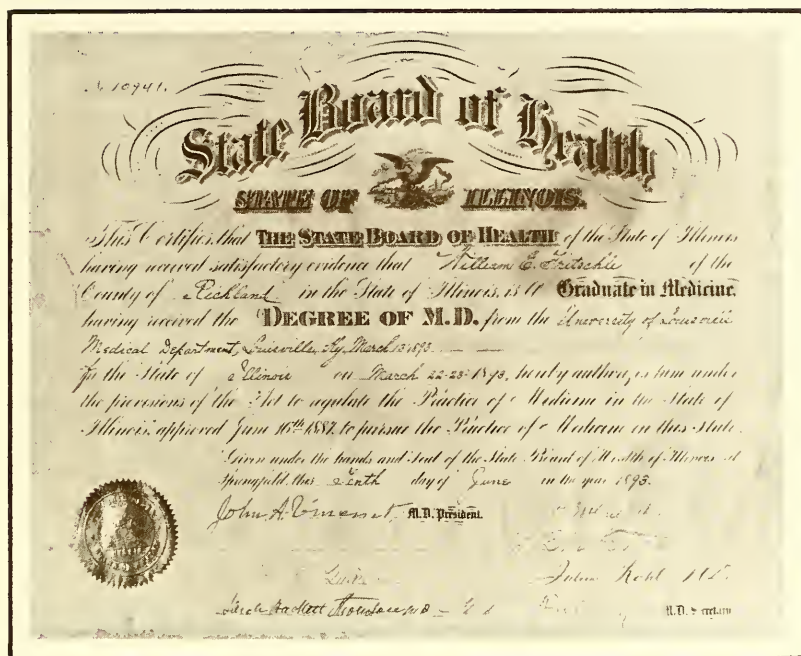
Certificate of Charles Henry Ray's appointment as Surgeon in New York's 105th Regiment, dated September 9, 1840. (Photo courtesy of The Pearson Museum.)

Besides Pat Spain Ward's essay in this issue, the following three topics will be addressed in major essays during the year: "The History of the Microscope" by George Cowan of the University of Tennessee Center for the Health Sciences, in Memphis, and Adrienne Noe of The Armed Forces Medical Museum in Washington, DC; "Modern Surgery and the Development of the Clinic in the Midwest" by Dale C. Smith of the Uniform Services University of the Health Sciences School of Medicine; and "Portrayal of Disease Symptoms in Pre-Columbian Mexico" by Hasso von Winning of Hollywood, California, who authored *Pre-Columbian Art of Mexico and Central America*.

In each issue, smaller essays are planned which describe special archival, library or museum collections which will be of interest to our readership. In the Summer issue, I plan to report on the organization of the yet-to-be-named association of health science museums. Items of interest about exhibits, change of personnel, and collection needs or sales will continue to be included.

National acceptance of *Caduceus* far exceeds what we had hoped when the inaugural issue was released last year. We welcome our new subscribers and other readers. We welcome new members of our Board of Advisors with heightened expectations because of the fine support received from their predecessors. These advisors and the wonderful members of the editorial board have made my tasks gratifying indeed. Together, we join colleagues both in North America and overseas who recognize that it will take us all to offset those who would change health care for ends that account neither for historical context nor public values.





State Board of Health certificate for Dr. William E. Fritschle, issued in 1893. In different ink, now deteriorated, the following statement was added to the line following "Medical Department Louisville, Ky., March 13, 1893," "and having passed a supplemental examination by The State Board of Health." Note the signatures of John H. Rausch as President and William E. Quine. (Photo courtesy of The Pearson Museum.)



The Emmet F. Pearson Collection of Disinfected Mail

by Glen W. Davidson

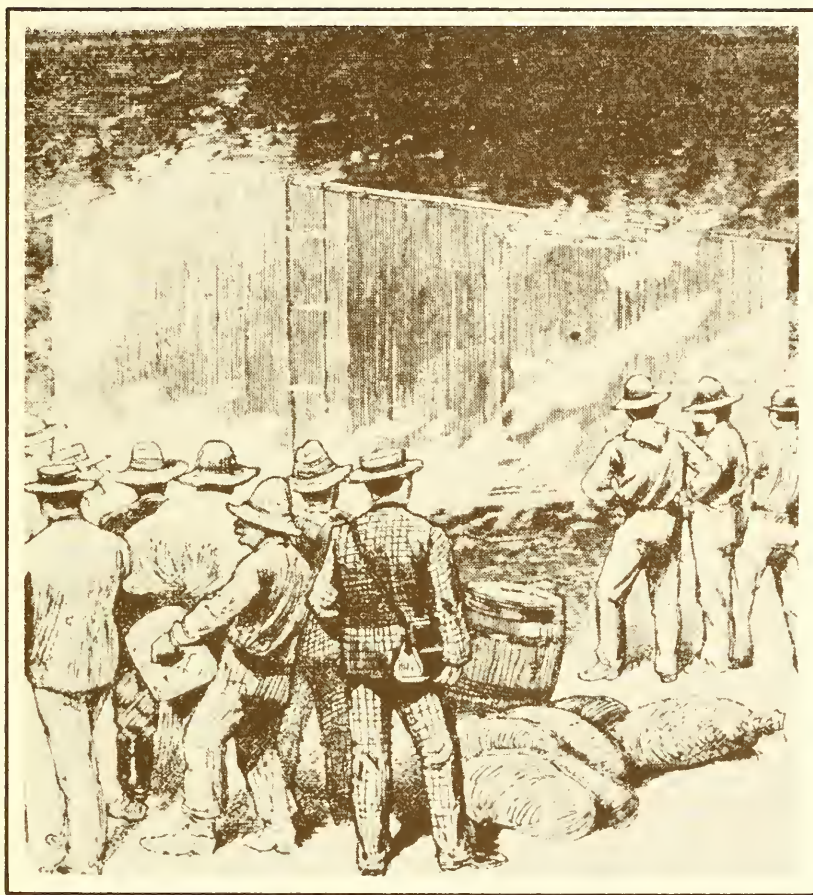
On the occasion of his eightieth birthday, Emmet F. Pearson, M.D. has donated his extensive collection of disinfected mail to Southern Illinois University School of Medicine.

Disinfection of mail is part of the history of human encounter with infectious disease and the far-reaching consequences which follow, particularly whenever those diseases invade a population that lacks any acquired immunity. The plague, typhus, cholera, smallpox, yellow fever, leprosy, tuberculosis, and now acquired immune deficiency syndrome (AIDS), have affected human affairs in ways too often ignored by professional historians. If nothing else, mankind is reminded, as William H. McNeill put it so clearly in his *Plagues and Peoples* (1976), that we are part of nature's food chain!

With the expansion of trading in the early fourteenth century, various European countries began, sporadically at first and far more systematically by the seventeenth century, to try to prevent contamination by isolating travelers and the artifacts of trade.

The Venetians were the first people in modern times to sequester ships and travelers for a stipulated forty days. The word *quarantine* is appropriated from them. About 1348, when they were threatened by plague, the Venetians created not only regulations for containment but built hostels, called *lazarettos*, where those quarantined could wait out their isolation. By the seventeenth century, most Mediterranean ports had *lazarettos*. And by the time of the steam ship, the concept of quarantine had been adopted throughout the world. Not until the creation of the World Health Organization in 1948, however, was international agreement reached about guides and standards for limiting the spread of disease through trade.

Disinfection of imported goods was practiced in America as early as 1647. Methods used ranged from exposure to sunlight in Boston in 1678 against the spread of smallpox, to primitive fumigation in 1701 at New Orleans, and in Georgia and New York in the last



Reproduction of a woodcut drawing appearing in Leslie's Weekly of 1888-1889 shows fumigation of the Jacksonville, Florida mail at the Waycross, Georgia station. (Photo courtesy of The Pearson Museum collection.)



Only known disinfected cover with confederate stamps is postmarked April 17, 1862 from Madison, Florida to Chatham Artillery in Savannah, Georgia. (Photo courtesy of The Pearson Museum collection.)

quarter of that century. The first *lazaretto* in America was built on Providence Island in the Schuylkill River (Philadelphia) in 1743 as an attempt to contain epidemics of yellow fever and smallpox. In 1798 President John Adams signed the United States Public Health Service Act which established health services for merchant seamen. But no standards were established for disinfection of mail until 1878 with passage of the Federal Act to Control Contagion.

With better understanding of infectious disease by 1890, disinfection of mail fell from favor, at least among medical scientists. But the regulations for quarantine of mail continued, leading a Public Health surgeon in 1906 to lament, "it may be considered that disinfection of mail is a generally useless labor and expensive—but clamor and fears of the public may render it necessary."¹ Though there have been a few suggestions that sterilization of mail should be considered in the case of AIDS, no systematic disinfection has been carried out in the United States since 1968, when electric ovens were used at both the leprosaria in Hawaii and the Carville, Louisiana USPHS Hospital.

Dr. Pearson first became interested in the history of infectious disease while a student at Washington University School of Medicine. He received his M.D. degree in 1930. Shortly after establishing his practice in internal medicine in Springfield, Illinois, he was called to duty in the United States Army, serving as a medical officer in Army hospitals in Hawaii and the South Pacific. On his way to the Philippines where, among other duties he supervised medical care of civilian prisoners held at the Santo Tomas internment camp near Manila, he stopped in San Francisco to visit Dr. Karl Meyer. Meyer was a recognized authority on tropical diseases and a foremost collector of disinfected mail.

After being honorably discharged from the military at the rank of colonel, Dr. Pearson resumed his practice in Springfield in 1945. Active in state, county and city history groups and chairman of the Illinois Medical Society History Committee, Dr. Pearson encouraged many people to begin collecting, preserving and displaying artifacts of historical interest. For example, he and Mrs. Pearson saved the abandoned Clayville Stagecoach Stop, refurbished the main buildings and donated the stop to Sangamon State University in 1973 for a rural life center. The medical memorabilia became the core of the museum now named in his honor at Southern Illinois University School of Medicine.



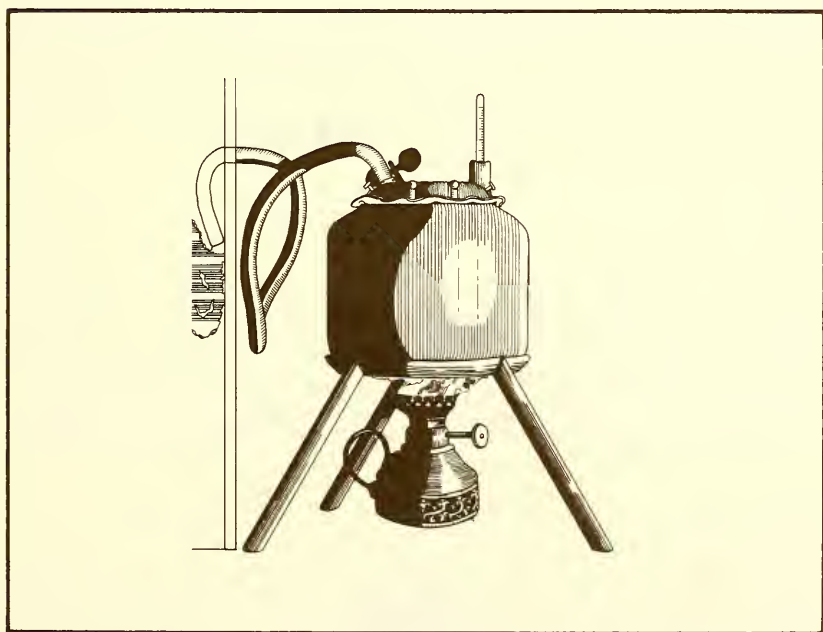
U.S. postal cars being used for disinfecting mail with formalin gas during the 1880 yellow fever epidemic, possibly at Waycross, Georgia. (Photo courtesy of National Library of Medicine.)

A collection of disinfected mail became available from Dr. Don Rawlings of Springfield in 1970. Rawlings' father Issac had been on staff, including the position of chief, of the Chicago Public Health Department for nearly forty years before becoming Director of the Illinois State Department of Public Health. He also was author of the classic, *Rise and Fall of Disease in Illinois*, published in 1927.

When Rawlings was discharged from the military in 1945, he joined the preventive medicine division of the Illinois State Department of Public Health. He reports that his interest in disinfected mail was aroused by an article in a neurology journal in 1952 and when, a year later, he saw a cover on sale at a Chicago dealer's, he began a collection which was to include more than one hundred items, over fifty of which came from different locations in Asia, Europe, and North America. Writing a decade later to a philatelic audience, Don Rawlings noted that "nowadays, health is taken for granted—really too much so. Just as fire departments and police departments are needed, so also health departments are needed—not just for the emergency but for continuous efforts to prevent emergencies—disease outbreaks and the like." His hand-written notes suggest that his motivation to collect disinfected mail in part was to be reminded that emphasis on public health dare not be slackened even with development of antibiotics

and vaccines. Unfortunately, Rawlings' career both in collecting philatelic materials and in preventive health were cut short by a stroke in 1968. He sold his collection to Dr. Pearson in 1970.

In order to begin systematic development of his own collecting of disinfected mail, Dr. Pearson again conferred with Dr. Meyer in 1971. Pearson remembers hearing Meyer say that he would be placing his collection with the Smithsonian Institution. But following Meyer's death in 1972, the family placed the collection with a broker in Detroit, who in turn prepared the items for auction in Kansas City in 1976. Dr. Pearson purchased most of the American items in his collection from the Meyer estate. Later additions were obtained in Europe, particularly from England and Germany. Dr. Pearson became an active correspondent with the study group on disinfected mail organized by J. Denis Vandervelde of London.



Facsimile of an apparatus used to create formalin gas for disinfecting mail. Possibly used in a cholera epidemic in Philadelphia in the 1870s. (Photo courtesy of The Pearson Museum collection.)

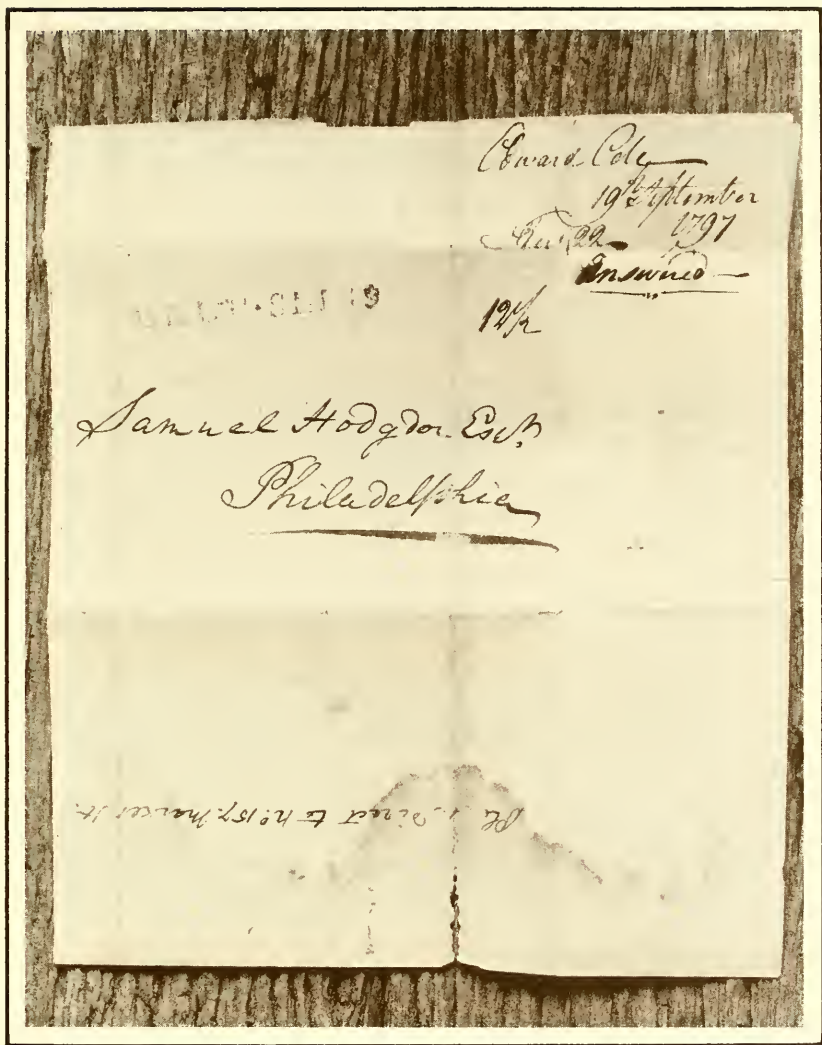
Scholars began to be aware of Dr. Pearson's collection from his presentations in London, Budapest, Houston, and Cairo. The collection is now being prepared for scholarly use and will become part of Southern Illinois University's growing collection on the history of medicine in North America.

Many of the items in the collection predate the use of stamps. Some of the writing has become illegible because of the treatment used in the quarantine offices. A few items demonstrate nearly total destruction by the punching of holes and the cutting of slits in order to have the disinfecting substance penetrate the interior of the envelope. On few occasions, letters were opened, treated and resealed. Some items were identified by special markings or cachets.

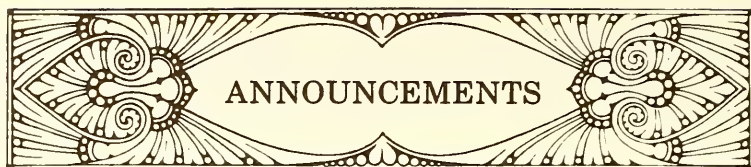
Professional historians have had difficulty finding primary material to document the enormous impact disease has had in shaping human events. Perhaps that is a major reason so many have neglected study of disease as a factor in their considerations. Were it not for collectors of philatelic materials, it is unlikely we would even have available disinfected mail by which to help piece together the complex and fragmented stories of mankind's efforts to contain infectious disease.

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1. E.F. Pearson and Wyndham Miles, "Disinfection of Mail in the United States," *Bulletin of the History of Medicine* 54 (1980):118.





With a stamped date of 1797, this letter is believed to be the earliest known example of disinfected mail from the United States. Sent to Philadelphia from Baltimore, this letter exhibits the characteristic slit and sulphur stain of disinfection. The contents give an historical account of the outbreak of yellow fever in Baltimore, including death tolls and criticism of the health commissioner for suppressing information on the severity of the fever. This date exceeds the previously recorded first usage of purification of mail from New Orleans by twenty-five years. (Photo courtesy of The Pearson Museum collection.)



ASSOCIATION PLANS ANNUAL MEETING IN ROCHESTER

The first formal meeting of the newly-formed history of medical sciences museums group will be held during the annual meeting of the American Association of the History of Medicine in Rochester, New York, which is scheduled for April 30-May 3, 1986. Part of the program is planned for April 29, the day before the AAHM meeting officially begins, and part is scheduled for a free evening. The Association of Librarians in the History of the Health Sciences has invited all interested members of the museum association to share in their meeting as well.

On April 30 the Rochester Plaza Hotel will serve as conference headquarters for the various groups in attendance. Highlights will include a report on the National Library of Medicine by John Parascandola and on the interpretation of medical and health history by Harvey Green of the Strong Museum. On May 1, also at the Plaza, dinner discussion will feature a report by Robin Kipps on the medical history programs and exhibits at Colonial Williamsburg.

Conference planners have promised to provide all necessary information to members of the museum association in March. Members and non-members may address inquiries to James Edmondson, Howard Dittrick Museum of Historical Medicine, Cleveland Health Sciences Library, Cleveland, OH 44106, or call (216)368-3648.



AUTUMN DATES SET FOR EIGHTH BRITISH MEDICAL HISTORY CONFERENCE

Dr. Nicholas Dewey, formerly president of Jenner Old & Rare Medical Books in London, announces the eighth in his series of medical history conferences on "The History of Medical Instruments and Pharmaceutical," to be held in London and Oxford September 7-17, 1986. Further information can be obtained by writing to Dr. Dewey in care of Medical History Conferences, BCM-Box DEWEY, London WC1N 3XX, England.



WOOD INSTITUTE CONFERENCE ON INTERNAL MEDICINE

"Grand Rounds: A Hundred Years of Internal Medicine" was the focus of the Second Francis C. Wood Institute Conference held at Philadelphia's College of Physicians on March 21-28, 1986. Conference participants, who included both medical historians and internists, met primarily to discuss the evolution of internal medicine in America. Featured speakers examined the interplay of individuals and events, in the laboratory and at the patient's bedside, focusing on themes central to the rise to prominence of internal medicine and on the development of individual subspecialties.

Of particular interest to medical historians were lectures on the evolution of cardiology, gastroenterology, infectious diseases and nephrology, and classifications used in internal medicine. Among numerous memorabilia on exhibit was an intriguing 1901 photo of the Federal Plague Commission, which featured Dr. Simon Flexner, brother of Abraham Flexner.



STRONG MUSEUM OFFERS FITNESS EXHIBIT

Attendees at the history of medicine meetings may wish to take advantage of the major new exhibit opening April 12 at the Strong Museum in downtown Rochester. Entitled "Fit for America: Health, Fitness, Sport and American Society, 1830-1940," this exhibit explores ways in which Americans have "healed, altered and preserved their bodies during the nineteenth and early twentieth centuries." Included in the items on display are medical memorabilia from Victorian times and examples of various popular home remedies.

For further information of a general nature, telephone the public affairs office at (716) 263-2700. For group rates, call ext. 255.

THE PEARSON MUSEUM TO FEATURE EXHIBIT ON MAIL DISINFECTION

An exhibit on the practice of mail disinfection and its relation to the development of quarantining and preventive medicine will open on June 1, 1986 in The Pearson Museum at Southern Illinois University School of Medicine in Springfield. Among the items that will be displayed are a 1797 piece believed to be the earliest known example of disinfected mail from the United States, the only known piece of disinfected confederate mail, a 1910 piece of disinfected mail written by a patient at the tuberculosis sanatorium in Mont Alto, Pennsylvania, and a Hawaiian letter detailing the official fires utilized to contain the plague.

British philatelist Denis Vandervelde of London, a noted authority on the subject of disinfected mail, has been invited to give the opening presentation on June 1 to the Central Illinois Medical History Club. The exhibit and presentation have been scheduled to coincide with AMERIPEX '86, the Chicago International Philatelist Exhibition to be held at the O'Hare Expo Center May 27-June 1, 1986.

TAVERN MUSEUM FEATURES EXHIBIT ON HEALING ARTS IN EARLY AMERICA

Currently featured at New York's Fraunces Tavern Museum is a comprehensive exhibit on "The Healing Arts in Early America," possibly "the first museum attempt to focus on the many ramifications of health care and conditions from the time of British settlement in the North American colonies to the early years of the new republic." Included in the exhibit are accounts and artifacts which illustrate clearly a most complex social and cultural environment evident in the seventeenth and eighteenth centuries.

Along with the exhibit, the Tavern has published a particularly fine publication with the same title to complement the museum displays. "The Healing Arts in America," which opened December 6, 1985, will continue through June 20, 1986. For further information, contact Robert I. Goler, Curator of Collections, Fraunces Tavern Museum, 54 Pearl Street, New York, NY 10006



MUSEUM THEATER OFFERS VISITORS NOVEL OPPORTUNITIES

Visitors to Boston's Museum of Science were able to enjoy exhibit artifacts in a novel light this past winter with the introduction of "The Barber Surgeon Had a Wife," a twenty-minute play centering around life aboard a Tudor warship in Elizabethan England. The play, which ran in conjunction with a British exhibit featuring the *Mary Rose*, the flagship of Henry VIII's fleet which sank off Portsmouth, England in 1545, demonstrates the marvelous possibilities of combining theater with museum offerings.

Staff of the Science Museum of Minnesota in St. Paul deserve credit for fostering the concept of "museum theater." Since 1971, Director of Public Programs Sandra Quinn and her colleagues have been working with the idea and now have refined the concept to such a degree that they often have as many as fifteen productions scheduled to run simultaneously at the St. Paul museum. The

advantages are obvious—the plays have proven very popular to museumgoers and are extremely effective as educational tools. Complications to the concept arise with consideration of just how to make a story unfold from existing artifacts. Playwrights are challenged to create both historically accurate and interesting drama. The successful playwrights of museum theater have been able to place humanity in a collection of artifacts and limit their productions to a half hour or so of effective theater.

The idea is exciting and is catching on at major museums of science and technology in Los Angeles, New York, Philadelphia, Toronto, Boston, Columbus, and Charlotte, North Carolina. Ms. Sandra Quinn, Director of Public Programs and Visitors Services, Science Museum of Minnesota, 30 E. 10th Street, St. Paul, MN 55101, is available to provide further information. A training workshop for museum theater is planned in St. Paul for September 7-9, 1986. Telephone (612) 221-9488.



150 YEARS FOR NATIONAL LIBRARY OF MEDICINE

With 1986 marking the sesquicentennial of the National Library of Medicine, institution staff are busy with plans to sponsor a series of symposia and special exhibits in connection with the celebration. Currently on display in the Library lobby is an exhibit entitled "Historical Treasures of the National Library of Medicine." The exhibit illustrates the "richness and diversity of the Library's historical collections through a selection of important and unusual manuscripts, prints, rare books and dissertations" from the History of Medicine Section. Visitors to the Library can view this priceless exhibit until August 31, 1986. For single copies of the exhibit brochure, write John Parascandola, Chief, History of Medicine Section, National Library of Medicine, Bethesda, MD 20894.

Hoosier Home Remedies

by Varro E. Tyler

Dean, Schools of Pharmacy, Nursing, and Health
Sciences, Purdue University



Tyler has collected more than 750 folk remedies from some 183 Hoosier-area correspondents. In addition to preserving part of Indiana's rich medical lore—a lore it shares in part with many other states—the book entertains with unlikely and sometimes hilarious remedies. Tyler's often wry commentary on the effectiveness, innocuousness, or dangerousness of each "cure" also makes the book valuable from a practical standpoint.

"Its strength lies in the judicious comments on many of the beliefs he has recorded."—**Dr. J. K. Crellin, Duke University Medical Center**

"[Tyler] reminds us that some of our most beneficial drugs were 'discovered' from among the ancient remedies and... suggests that others of equal or greater importance may yet be found in the same place. He also has a scientist's eye for hokum and calls it by its right name."—**Peter T. Harstad, Executive Secretary, Indiana Historical Society**

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